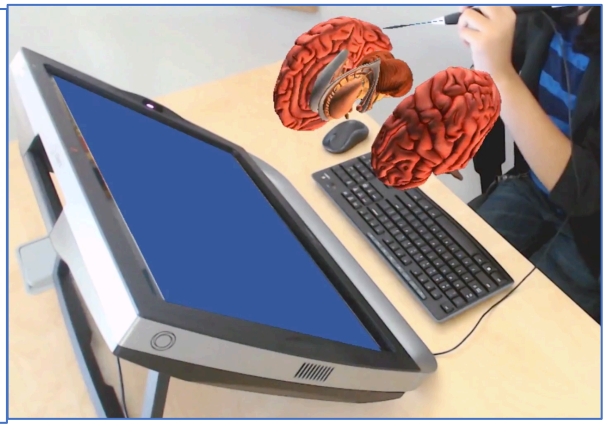
zSpace Guidebook



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DREXEL UNIVERSITY
E-LaBS
Education, Learning and Brain Sciences
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zSpace Guidebook

Overview

Thank you for your interest in E-LaBS and zSpace. This handbook provides general overview of zSpace and five of its major learning programs licensed with the E-LaBS. It also includes brief explanations on how to get started with zSpace and how to use the zSpace accessory tools such as the stylus. You can find out more about zSpace and its other programs and services through the zSpace official website https://zspace.com/. If you have any questions, please contact Brian Delaney bcd48@drexel.edu or Kate Fan at yf366@drexel.edu

What is zSpace

ZSpace is a computer-based learning platform that provides an immersive experience by eliminating the barrier between the user and content through elements of augmented reality (AR) and virtual reality (VR). One zSpace package includes a computer (desktop/laptop), tracking glasses and a stylus.

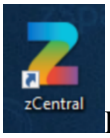
From the zSpace computer, users can access multiple learning programs across different disciplines tailored to different educational levels. This handbook will introduce five of its programs: Curies Elements, Euclid Shapes, Franklin's Lab, Human Anatomy Atlas, and Newton's Park. For a complete overview of all the available programs on zSpace and their guidelines, visit https://zspace.com/apps/.

Get Started with zSpace — General Guides

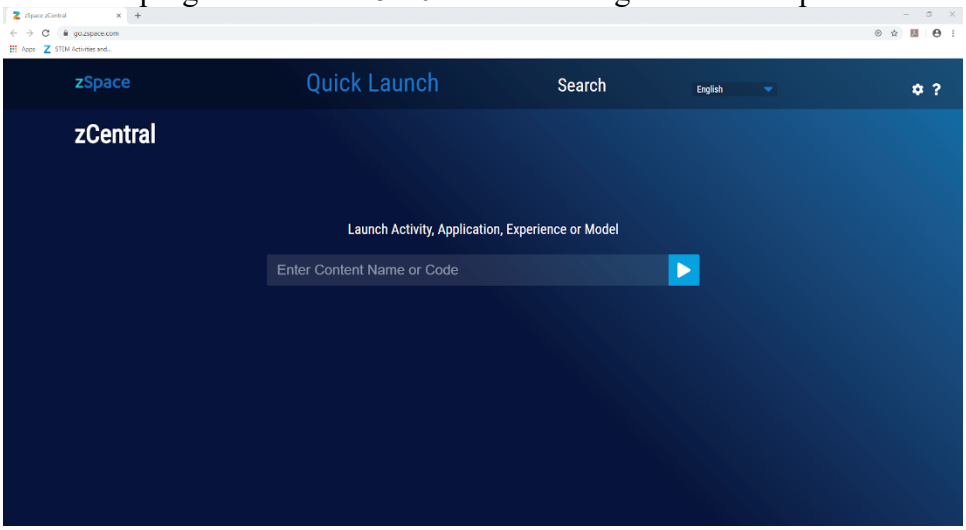
Operation Instructions

1. Turn on zSpace by pressing the power button on the top right corner of the desktop (or by pressing the power button in the top right corner of the keyboard for laptop users)
   Note: It may take 5-10 seconds to start..
1. Check your setup
   a. Sit or stand close to your zSpace (20-40 inches away from the monitor) and centered in front of the screen.
   b. Avoid sitting too far away from the system or too low in your chair.
2. Check your glasses
   a. Choose whether to wear Tracked Glasses or Follower Glasses
   b. Note: Only ONE pair of Tracked Glasses can be used for each zSpace
      i. Tracked Glasses have sensors within their frames that enable one user to interact with the activity and use the stylus.
      ii. Follower Glasses enable up to two other people to watch the activity in 3D without manipulating the program as these glasses lack sensors in their frames.

3. Watch Introduction videos
    a. Click the Windows button on the bottom left side of the screen.
    b. Click the icon for zSpace Introduction
    c. An introductory video will launch across the entire screen. You can view the video or hold the mouse over the taskbar at the bottom to exit out of the video.
    d. Once the video is removed, you will land at the "Welcome to zSpace" page. (Note: You may need headphones to listen to the video … The video taskbar is at the bottom. You can click the button to "toggle the video out of full screen.")
    e. Click the X at the top right of the browser to exit the video. This will take you back to the "Welcome to zSpace page."

4. Launch an activity (see the following section - "zSpace programs" for more details)
    a. 

Double click the zSpace icon on the left side of the screen to access zCentral
    b. Enter a launch code in the search bar that says, "Enter Content Name or Code" (see the next section zSpace programs for the launch code for each program). Note: The program will take 5-10 seconds to begin. Please be patient.



5. Interact with stylus (User wearing Tracked Glasses)
    a. Use the primary button to select or take actions where the beam is pointing
    b. Each activity will utilize the secondary buttons in different ways (see more details on the "Activity Guide" within each activity)

6. What if my stylus beam does not appear on screen?
   Hold the stylus steady in front of the screen for a few seconds and the beam will reappear

Shutting Down zSpace

1. Exiting an activity within a program
   Hover over the "House" icon in the middle left side of the screen, click the house icon on the top left corner to return to the program main menu

2. Exiting a program
   On the program's main menu, hover over the "House" icon in the middle left side of the screen, click the person-exiting-door icon to go back to Quick Launch in zCentral

3. Exit the zCentral browser
   Click the "X" in the top right corner of the screen

4. Shutting the computer down
   a. Click the Windows icon in the bottom left corner of the screen
   b. Click the power button then select "Shut down"

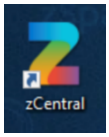
Z-Space Programs

Euclid's Shapes

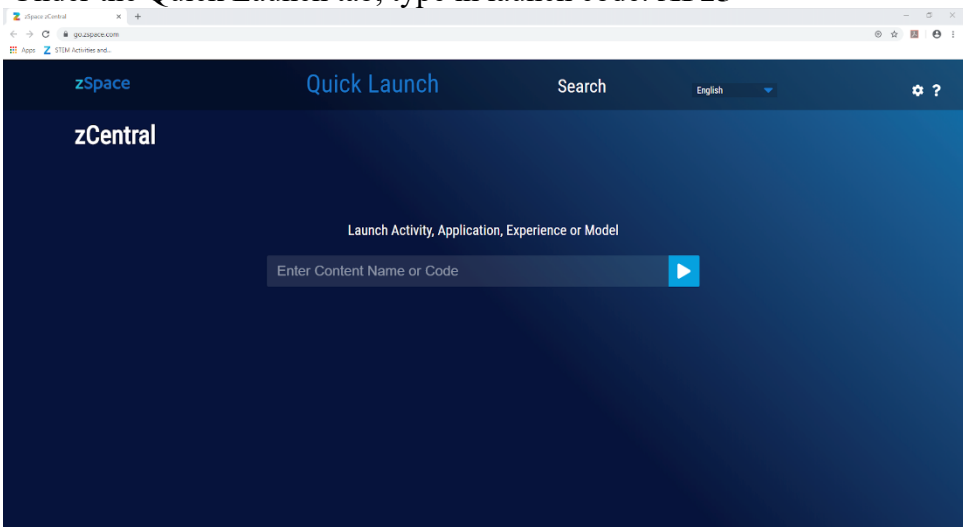
Brief Introduction:

This math-based program utilizes manipulative blocks, cubes, and tiles to create learning activities for students to understand concepts such as fractions, functions, geometry, and ratios.

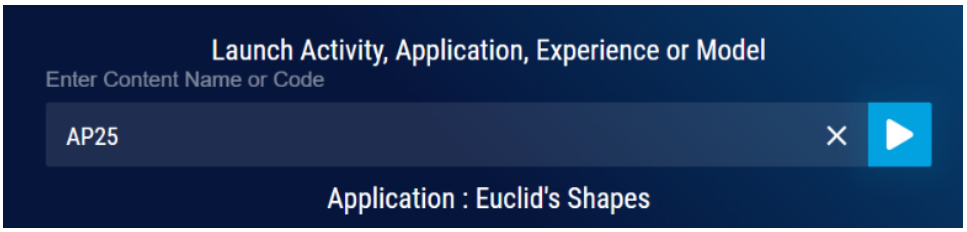
Operation Instructions:

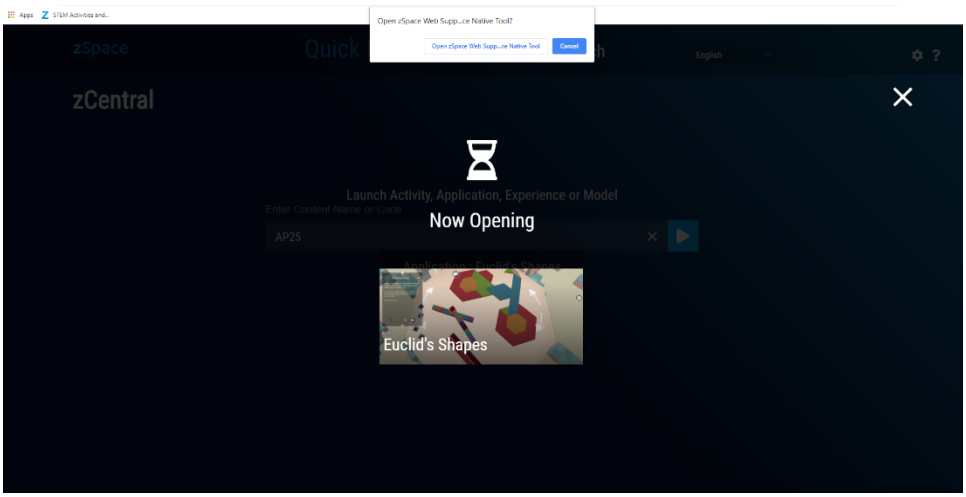
1. Double click zSpace Central 

2. Under the Quick Launch tab, type in launch code: **AP25**



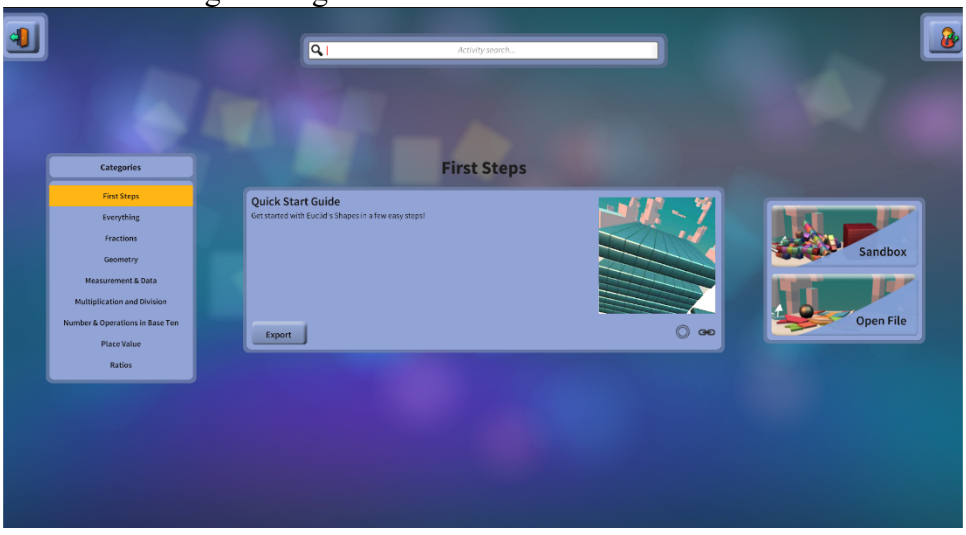
3. Click the arrow on the right of the launch bar and wait while the application loads
Note: If a "popup" appears asking whether to launch the activity, select the first button which starts with "open" to continue the download. This may take several minutes to open. Please be patient.





4. Click on “Explore Activities”

5. Choose “First Steps” (under “Categories” on the left side), then click the image in “Quick Start Guide” to go through a short tutorial



6. Explore other activities under “Categories” as needed: hover the mouse over the image and press the blue play button to launch the respective activity

7. When in an activity, go through the “Activity Guide” displayed on the top left corner of the screen

Button Functions:

- Primary Button
  - Used as the general selection button to manipulate blocks as well as press buttons along the sides and top of the screen to select activities
- Left Button
  - “left click” when pointing the stylus beam at one or multiple blocks, tiles, cubes, or slabs to highlight them
  - Use the right button for further action/manipulation
- Right Button
  - “right click” one or more highlighted blocks, tiles, cubes, or slabs to pull up a circular menu
  - Options on the menu include “Duplicate,” “Compose,” “Delete,” and “Decompose”
    - Use these options to alter the setup of the materials within the chosen activity

Exit the program:

1. Hover over the “House” icon in the middle left side of the screen, click the house icon on the top left corner to return to the Euclid’s Shapes main menu

2. On the Euclid’s Shapes main menu, hover over the “House” icon in the middle left side of the screen, click the person-exiting-door icon to go back to Quick Launch in zCentral
3.Exit zCentral by clicking the "X” in the top right corner of the screen

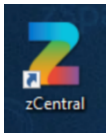
For more information and a tutorial video on Euclid’s Shapes, visit this link:
https://zspace.com/edu/info/zspace-euclids-shapes

Franklin's Lab

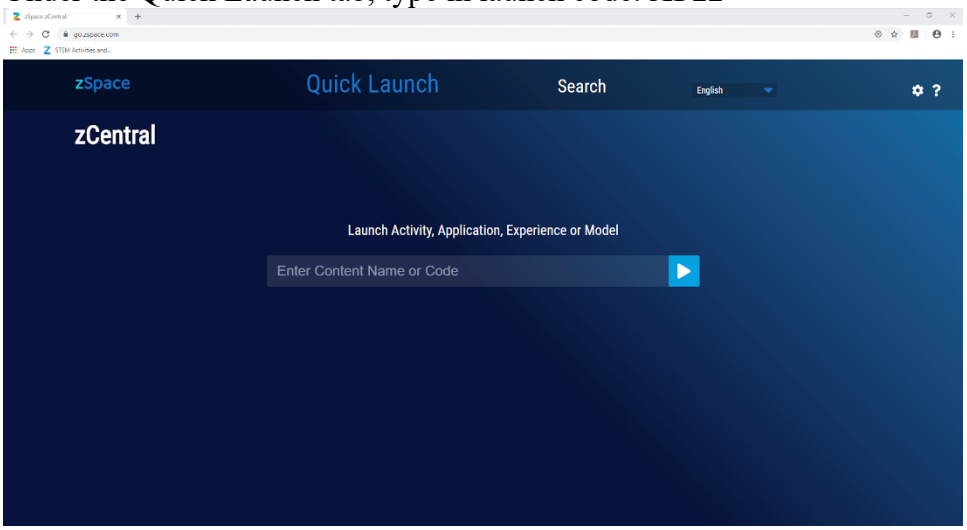
Brief Introduction:

Franklin's Lab teaches the process of troubleshooting while allowing students a safe place to discover the basics of electrical circuits. Circuit components can be limited or broken to create problem-solving scenarios for students.

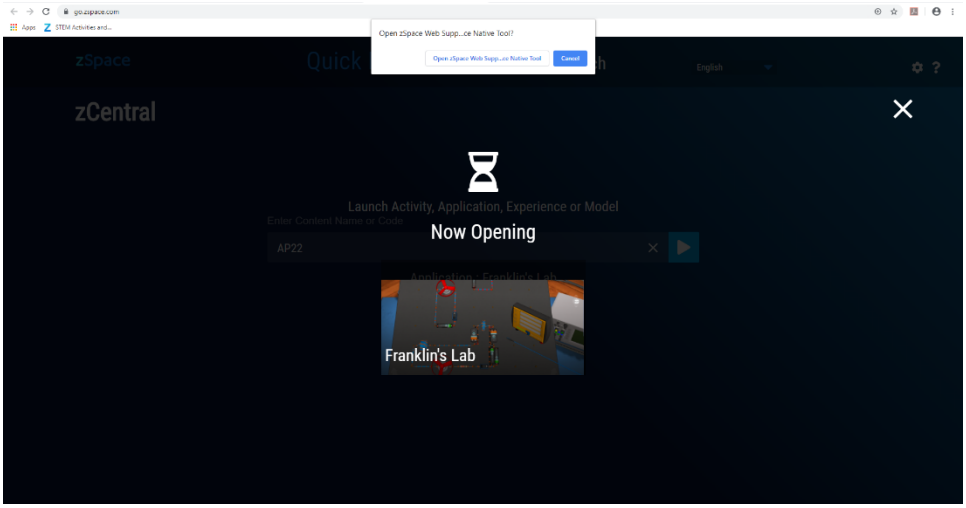
Operation Instructions:

1. Double click zSpace Central 

2. Under the Quick Launch tab, type in launch code: **AP22**

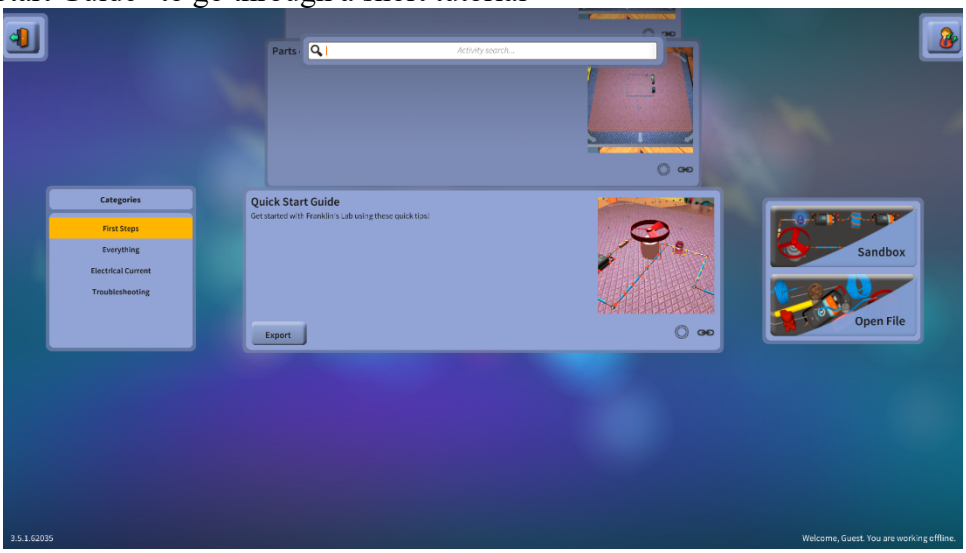


3. Click the arrow on the right of the launch bar and wait while the application loads
Note: If a "popup" appears asking whether to launch the activity, select the first button which starts with "open" to continue the download. This may take several minutes to open. Please be patient.

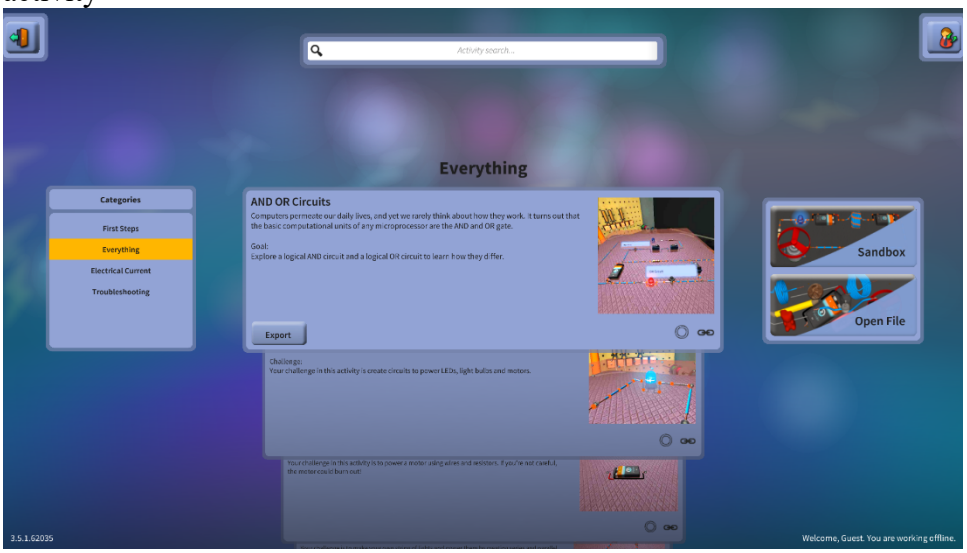


4. Click “Explore Activities”

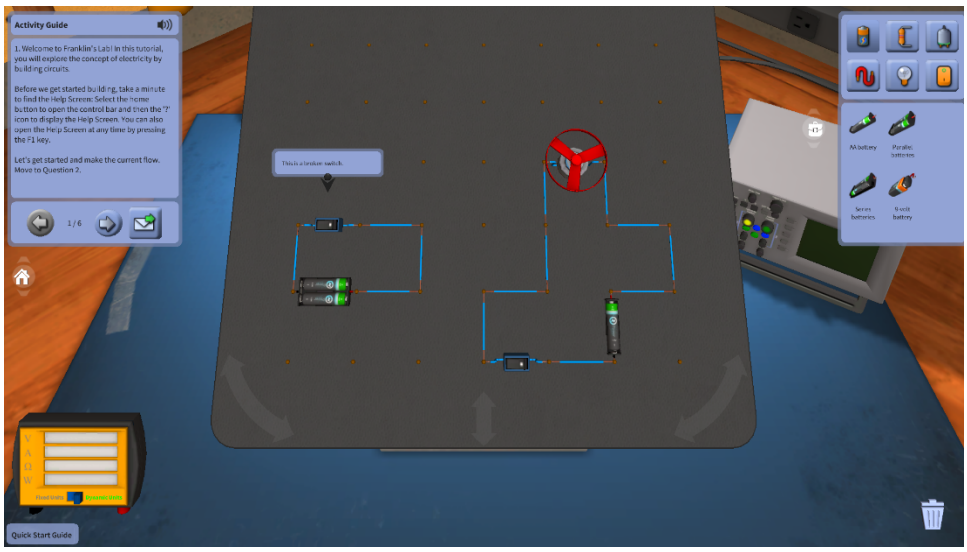
5. Choose “First Steps” (under “Categories” on the left side), then click the image in “Quick Start Guide” to go through a short tutorial



6. Explore activities under “Categories” - “Everything” on the left of the screen as needed: hover the mouse over the image and press the blue play button to launch the respective activity



7. When in an activity, go through the “Activity Guide” displayed on the top left corner of the screen



Exit the program:

1. Hover over the “House” icon in the middle left side of the screen, click the house icon on the top left corner to return to the Franklin’s Lab main menu

2. On the Franklin’s Lab main menu, hover over the “House” icon in the middle left side of the screen, click the person-exiting-door icon to go back to Quick Launch in zCentral

3. Exit zCentral by clicking the "X” in the top right corner of the screen

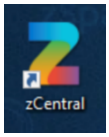
For more information and a tutorial video on Franklin’s Lab, visit this link:
https://zspace.com/edu/info/zspace-franklins-lab

Curie's Element

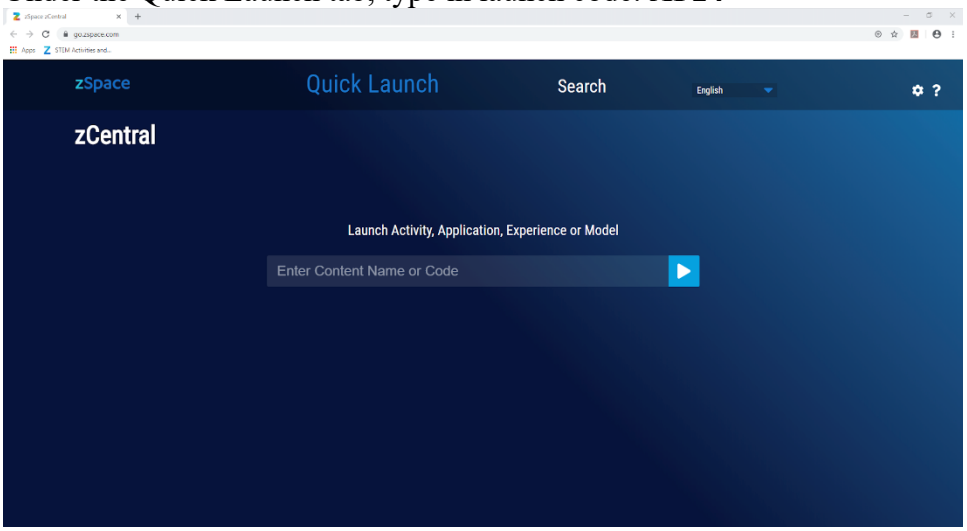
Brief Introduction:

This interactive periodic table has Bohr and atomic (orbital) models of each element, visualization of trends in the periodic table, an atom builder and learning activities. Details for each element are also included. Learning activities are available in Spanish, Simplified Chinese and English.

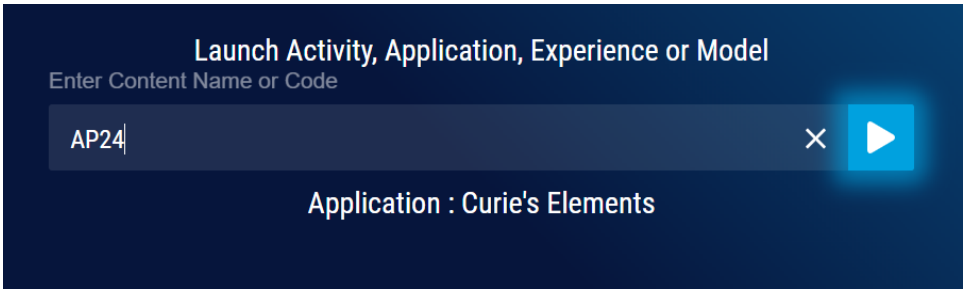
Operation Instructions:

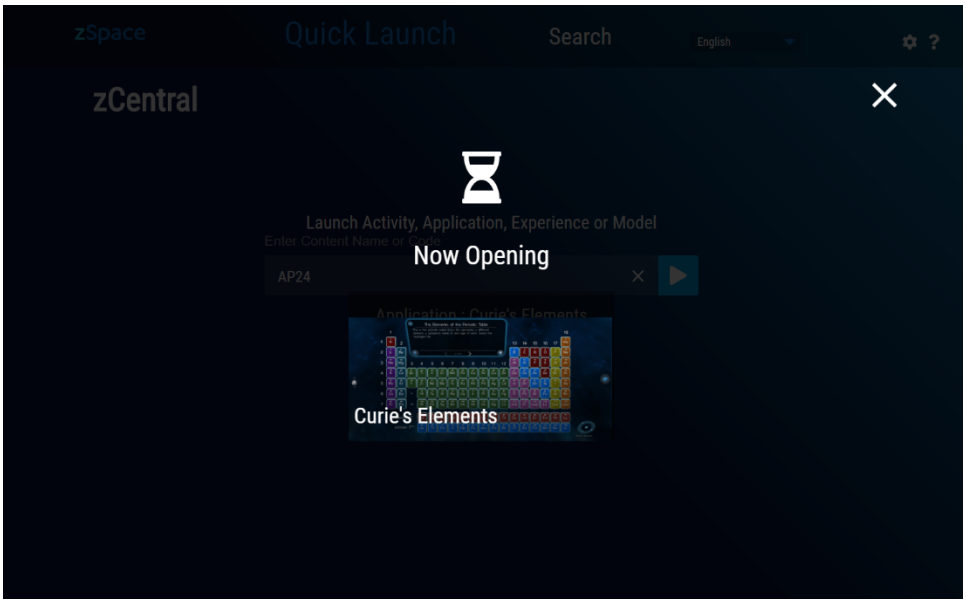
1. Double click zSpace Central 

2. Under the Quick Launch tab, type in launch code: **AP24**

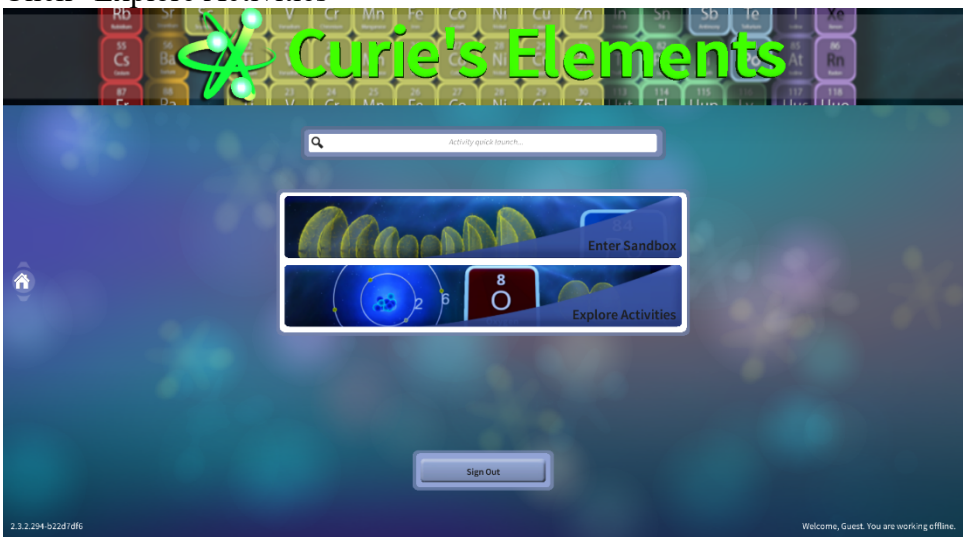


3. Click the arrow on the right of the launch bar and wait while the application loads
Note: If a "popup" appears asking whether to launch the activity, select the first button which starts with "open" to continue the download. This may take several minutes to open. Please be patient.

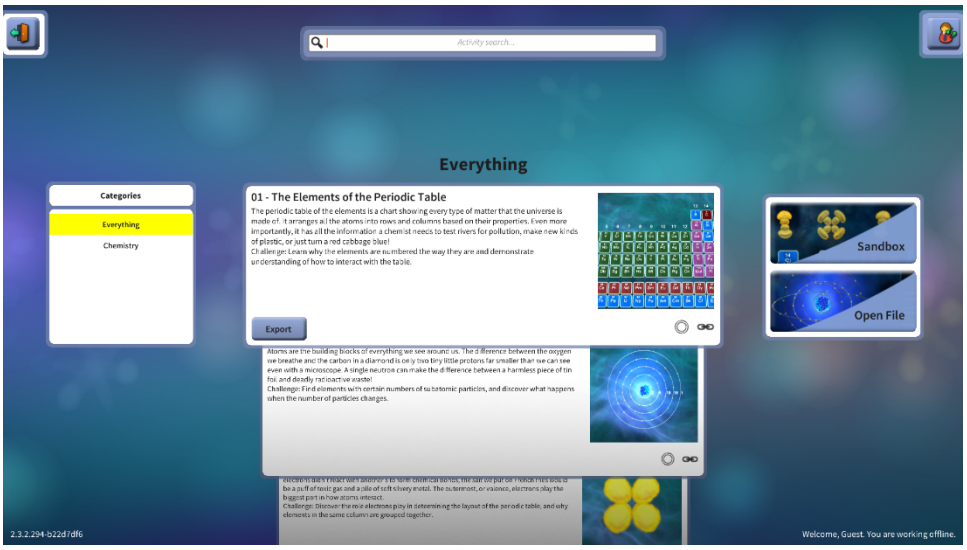




4. Click “Explore Activities”



5. Explore activities under “Categories” - “Everything” on the left of the screen as needed: hover the mouse over the image and press the blue play button to launch the respective activity



6. When in an activity, go through the general guide displayed on the left side of the screen

Exit the program:

1. Hover over the “House” icon in the middle left side of the screen, click the house icon on the top left corner to return to the Curie’s Element main menu

2. On the Curie’s Element main menu, hover over the “House” icon in the middle left side of the screen, click the person-exiting-door icon to go back to Quick Launch in zCentral

3. Exit zCentral by clicking the "X” in the top right corner of the screen

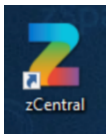
For more information and a tutorial video on Curie’s Element, visit this link:
https://zspace.com/edu/info/zspace-curies-elements

Human Anatomy Atlas (Visible Body)

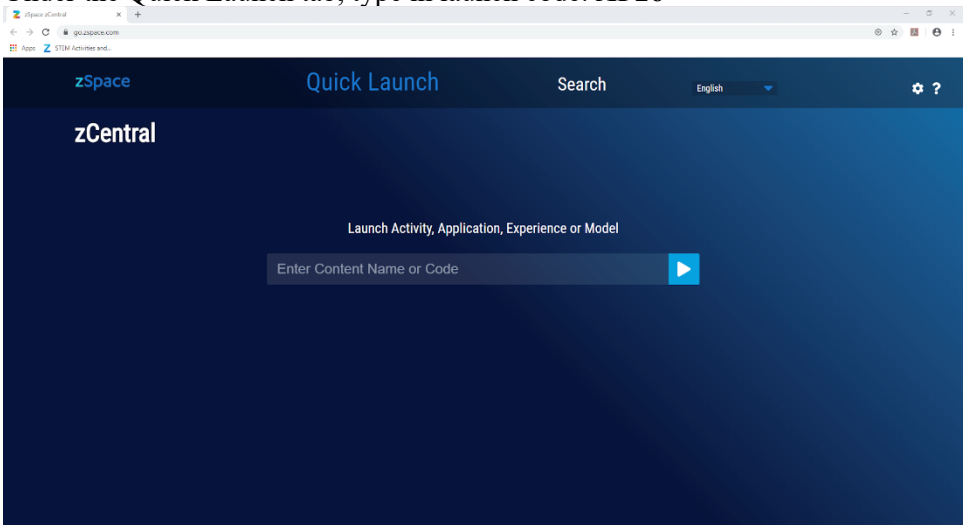
Brief Introduction:

Use the Human Anatomy Atlas for independent student research and to aid in developing accurate mental models of the human body and how its parts relate to each other. Muscular movement animations provide insight into how the muscular system moves the skeleton. Quizzes allow for self-assessment of learning. Several languages available. Due to the detail of the anatomy and the reading level of the written content, Visible Body is best suited for students in high school or above.

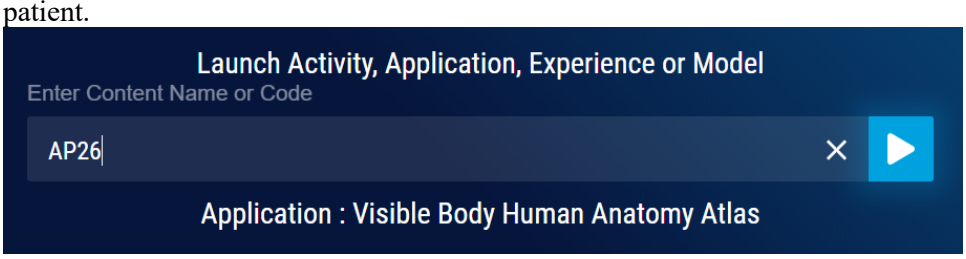
Operation Instructions:

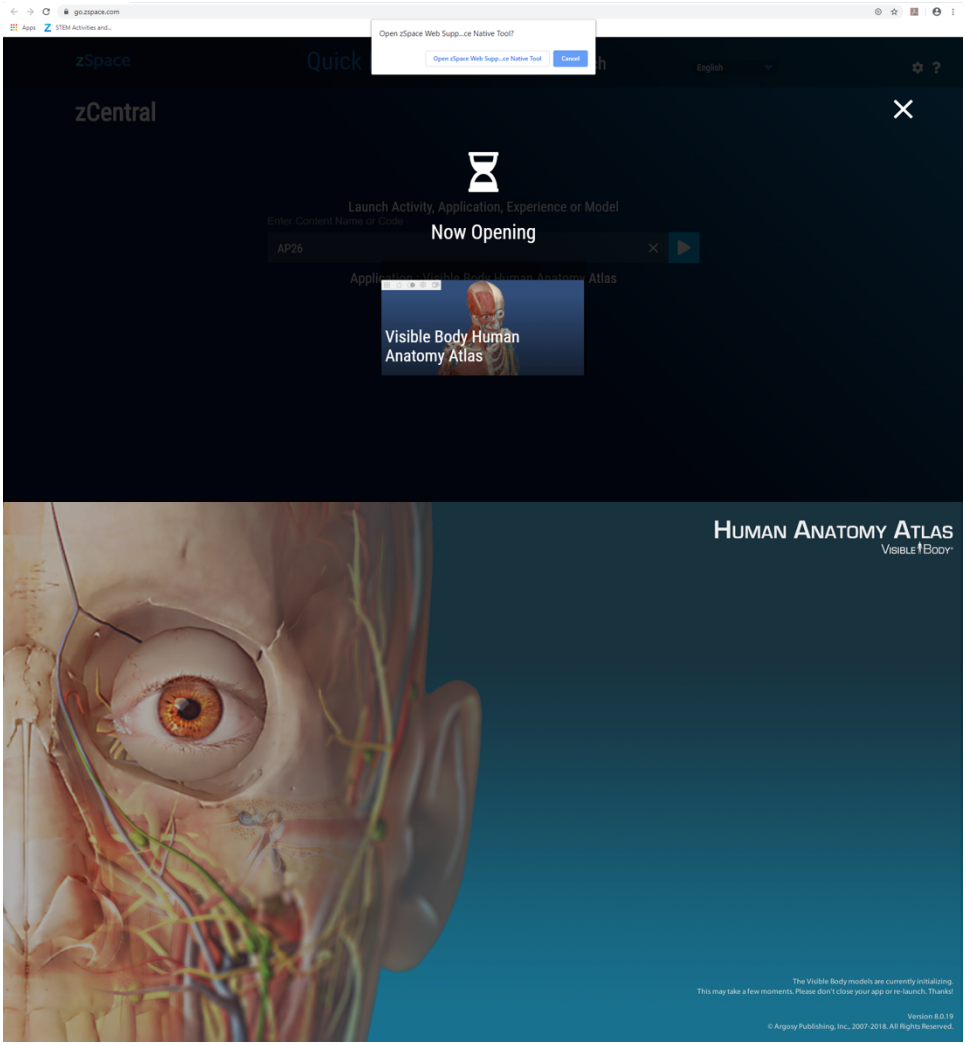
1. There is no activity guide located in this program. It may be helpful to watch the introduction video before opening this program (see the detailed instructions on where to find the introduction videos in"Get Started with zSpace – General Guides" - 3. Watch Introduction videos in this guidebook)
2. Double click zSpace Central 

3. Under the Quick Launch tab, type in launch code: **AP26**

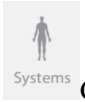


4. Click the arrow on the right of the launch bar and wait while the application loads
Note: If a "popup" appears asking whether to launch the activity, select the first button which starts with "open" to continue the download. This may take several minutes to open. Please be patient.





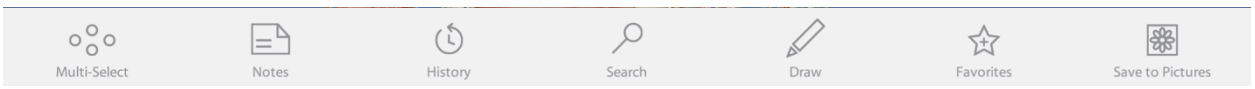
5. Click the icon with four squares on the top left corner to access different body systems, quizzes, favorites and medias. Click the same icon on the bottom left corner to exit this page.

6. 

Click the Systems icon on the top right corner to add and subtract different body systems

7.

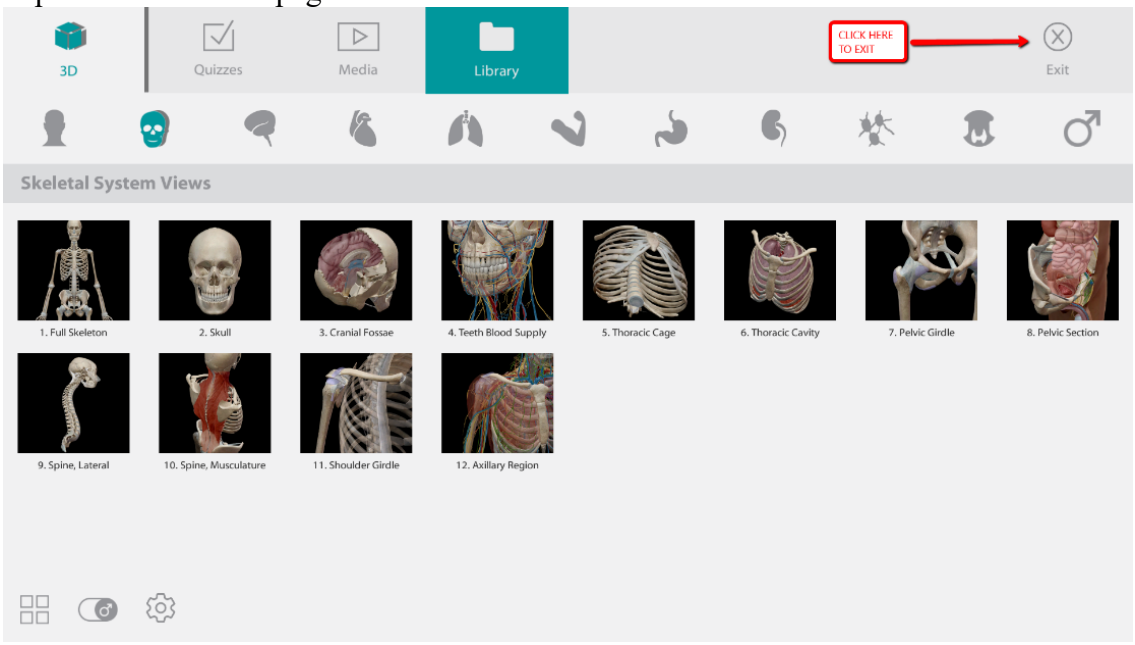
Click the Tool icon on the bottom right corner to access tools: Multiselect, Notes, History, Search, Draw, Favorite, and Save to Pictures



Exit the program:

1. To exit the program, click the icon with four squares at the top left of the screen.

2. Click the exit button at the top right of the page. Click “Yes” to confirm and return to the zSpace Central main page.



3. Exit zCentral by clicking the "X” in the top right corner of the screen

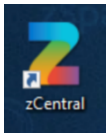
For more information and a tutorial video on Human Anatomy Atlas, visit this link:
https://zspace.com/edu/info/human-anatomy-atlas-for-zspace

Newton's Park

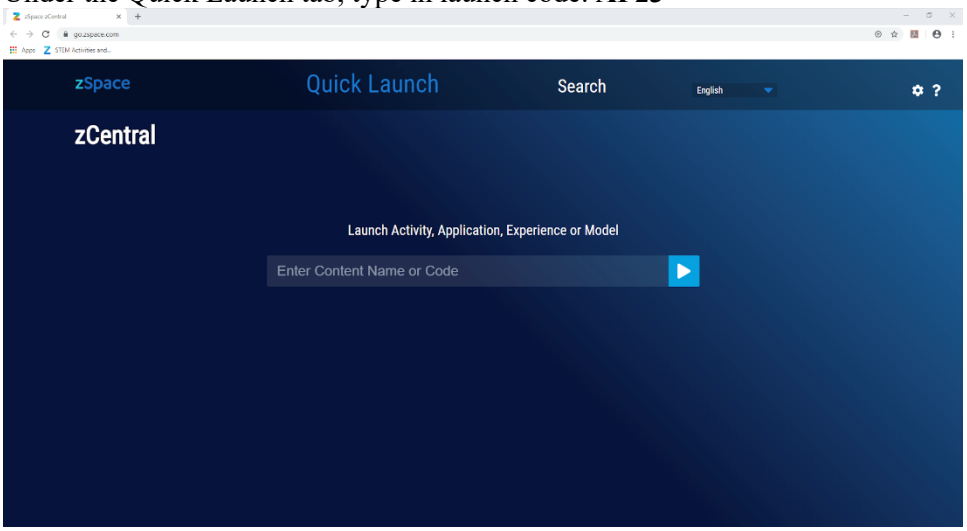
Brief Introduction:

A physics playground that promotes discovery through experimentation. Learners can build simulations, change gravity, stop and reverse time while gathering data to deepen understanding of Newtonian mechanics. Activities are available in English and Simplified Chinese.

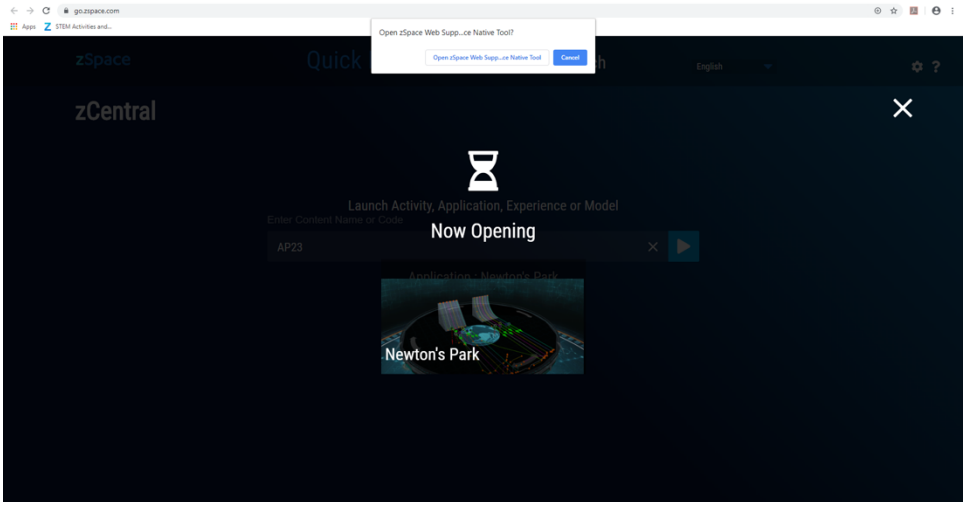
Operation Instructions:

1. Double click zSpace Central 

2. Under the Quick Launch tab, type in launch code: **AP23**

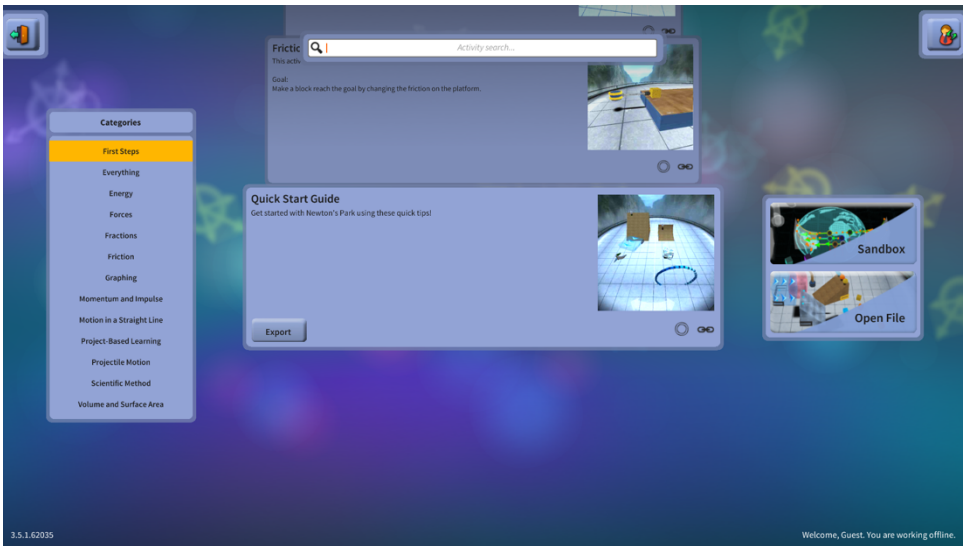


3. Click the arrow on the right of the launch bar and wait while the application loads
Note: If a "popup" appears asking whether to launch the activity, select the first button which starts with "open" to continue the download. This may take several minutes to open. Please be patient.

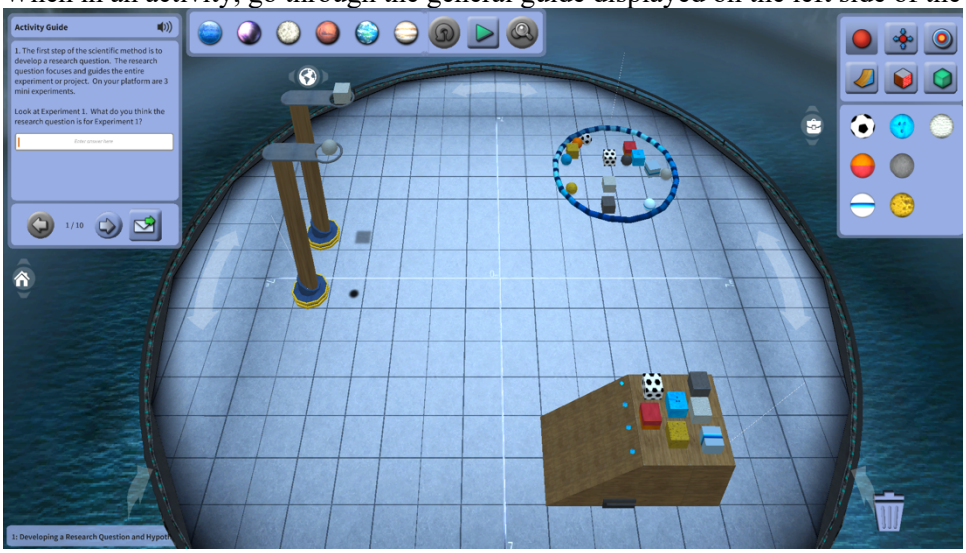


4. Click “Explore Activities”

5. Choose “First Steps” (under “Categories” on the left side), then click the image in “Quick Start Guide” to go through a short tutorial



6. When in an activity, go through the general guide displayed on the left side of the screen



Exit the program:

1. Hover over the “House” icon in the middle left side of the screen, click the house icon on the top left corner to return to the Human Anatomy Atlas main menu

2. On the Human Anatomy Atlas main menu, hover over the “House” icon in the middle left side of the screen, click the person-exiting-door icon to go back to Quick Launch in zCentral

3. Exit zCentral by clicking the "X" in the top right corner of the screen

For more information and a tutorial video on Newton's Park, visit this link:
https://zspace.com/edu/info/zspace-newtons-park

Questions:
If you have any questions, please contact Brian Delaney bcd48@drexel.edu or Kate Fan at yf366@drexel.edu

DREXEL UNIVERSITY
E-LaBS
Education, Learning and Brain Sciences
Research Collaborative
School of Education