Item Descriptions [Modular Budget]

Tablets

Priority: 1

Due to the price range and the versatility of Hyundai Tablet (Target) tablets, they are the perfect candidate to be the foundation of the technological transition of the centers. They could be used to access online lessons and materials to be used for daily activities. The Hyundai tablet costs roughly \$69.99, depending on the retailer. It is an Android tablet with 2GB of RAM, 16 GB of memory, and a front and rear-facing camera. It supports WiFi and bluetooth connections, with a headphone jack for audio and microphone capabilities. Some reviews report that pages on the internet can be a little slow to load; however, overall the tablet is a decent price for its capabilities.

Hyundai Tablet (Manufacturer)



Tables & Chairs

Priority: 1

During our interview with Lead Volunteer Table John Nydick, we determined that new tables and chairs would be needed for the center. The current tables and chairs are stackable to make the most use of the currently available space; however, newer designs can further maximize space and provide multi-functional capabilities.

The proposed table is \$294.39 for one, is still foldable and has casters to increase mobility. The table has a whiteboard surface, so that students and volunteers can collaborate using an erasable medium while keeping their work at-hand. The table also comes with a wire management feature, which would work well with the other proposed electronic additions to the center. The suggested chair to accompany these tables is priced at \$79.88 per chair, and also has wheels and can be stacked up to four chairs high. They come in a variety of colors, and are recommended for ages 10 and up.



Projector & Screen

Priority: 1

While tablets are meant for individual use and lessons, the projector could be used for activities that involve a larger audience. With a simple hdmi connection, you can connect a laptop or computer to display the desired material to a larger audience. Two possible projector options are listed; the first is a basic model Excelvan projector with a small projection distance and low light level. It is low-cost, just \$69.99, and would provide some functionality. The second option is a Viewsonic projector, with much better lighting and projection distance. It would be easier to use in the classroom, and has better resolution. This is the recommended option, although it increases in price to \$289.99. A projector screen is also necessary; the listed screen is retractable and can be easily installed on a wall. The price is \$64.82. *Note: a projector will require the use of a laptop.







Projector 2

Projector 1



Laptops

Priority: 2

The laptops, while more expensive than the Chromebook tablets, have more access to various applications. The laptops also would have more processing power just in case any applications take a lot of processing resources. The recommended HP Chromebook costs \$179.99, depending on the reseller. It has an Intel Celeron N3060 processor, 4GB of memory and 16GB of storage, 2 USB ports and an HDMI port, webcam, and 11 hours of battery life.



Laptop Cart

Priority: 2

A laptop cart allows for the charging, Laptop Cart storage, and ensured security of laptops or tablets. The recommended cart holds up to 24 devices with height-adjustable shelves, a locking door, and wheel casters for easy mobility. There are 24 provided power outlets; these would be compatible with the chargers received with the above recommended tablets and laptops. However, a power converter will probably need to be purchased for the overall cart. The total cost is \$589.88.



Tablet Cases

Priority: 2

We would recommend purchasing tablet Valkit Case cases to better protect the tablets that are purchased. Given that children will be using them, they will be more prone to being dropped or used roughly and implementing cases with the tablets will limit how quickly the tablets will break. To be compatible with the Hyundai tablets, we recommend purchasing cases that are "universal," or made to fit any 8" tablet. The first suggested option, the Vallkit Universal Case, is a sleek and minimally designed case. It will protect the tablets from light wear-and-tear, as well as short drops. It is \$10.00 per case. The second option, the Cooper Trooper Rugged Case, offers more durability, and is made for heavy use from young children. It is made out of silicone and comes in a variety of fun colors, and costs \$21.95 per case.





Cork Boards

Priority: 2

We would recommend purchasing cork Cork Board boards to allow for easily changeable decoration and the ability to display students' work throughout the center. With the proper tools, such as staplers, thumbtacks, and craft supplies, you can create colorful, themed boards that can be educational, fun, and allow the students to have involvement in creating pieces to decorate it. A single cork board costs approximately \$24 each. The cork board we recommend can be viewed in the photo. It is 3 feet by 4 feet (0.91 meters by 1.22 meters).

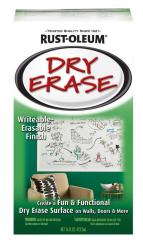


Whiteboard Paint & Dry-Erase Markers

Priority: 2

We would recommend purchasing whiteboard paint and dry-erase markers so that the students can have an added space to express themselves in the center. While the cork boards will allow this, it usually takes a longer time to design a whole cork board, meaning the themes couldn't necessarily change as quickly. With a space painted with whiteboard paint, students can have a space that they can use to add to the center that can be changed as frequently as they want with little to no hassle. Overall, the whiteboard paint costs \$21.58 and a set of 8 multicolored markers will cost about \$10.

Whiteboard Paint



Folding Picture Frame Tables

Priority: 2

Similar to the whiteboard tables we Picture Table for Purchase recommended, folding picture frame tables help maximize available space provide and multi-functional capabilities. Our team was able to find a high end model of this type of table for \$185.63, available for purchase through Bellacor; however, our team believes that purchasing the materials and building the table is the best option. Not only would building the tables be the cheaper option, but it would be a fun, engaging activity for the students and volunteers. Instructions for building these types of tables can be found here, or by searching "Folding Picture Frame Table Instructions" on YouTube. We estimate that building the tables would cost approximately \$50.00 per table.





3D Printer

Priority: 3

Probably the most ambitious item on our list, a 3D printer could be a great tool to get students to get engaged in design and/or certain arts and crafts. The reason this has a low priority is due to initial investment costs. Not only do you have to buy the printer which is not entirely cheap, but you also have to train most if not all the volunteers to use it and maybe the students as well. The positive is that once initial investment is done, it's very inexpensive when it comes to upkeep and printing materials. Because of the vast range of printers on the market, we simply estimate the cost of one printer to be \$900.

Wacom Tablet

Priority: 3

The survey responses indicate a number of Tablet students have an interest in art. Introducing drawing tablets, such as the Wacom tablet, could cater to their responses. The Wacom tablets are electronic drawing surfaces that use special pens to detect drawing movements and pressure intensity. They connect by bluetooth to a computer or other tablet that registers the information collected by the Wacom tablet and creates a picture according to what was drawn. A simple, basic Wacom tablet would currently cost \$79.95.



Software Descriptions

The technology listed above has great potential to positively impact the students, the volunteers, and their ability to collaborate and communicate in the center. However, the ability to effectively use this technology depends largely on finding the resources they give their users. The following list comprises software that can be used in conjunction with many of the suggestions made in order to fully realize the advantages of technology incorporated into classroom learning. Of course, there are many more online resources that would greatly benefit the students and the center. The ones below are simply examples of topics and ideas that can be further explored.

Translation:

<u>Google Website Translator</u> - this free translator powered by Google can translate websites from English into Romanian, allowing the following English sites to be used by anyone at the center.

Online Museum Exhibits:

<u>Smithsonian</u> - a database of exhibits showcased at the Smithsonian museum in the United States. The Smithsonian comprises 20 different museums, covering topics such as art, history, natural science, and space.

Grigore Antipa Collections

National Museum of Art Romania Collections

Productivity:

<u>Google Suite</u> - includes Google Docs, Slides, Sheets, and more. Students can use these to complete assignments and collaborate on documents.

<u>Kahoot</u> - an online, quiz-based jeopardy game in which students answer questions on their devices (tablets, computers, or phones), and the student with the most correct and fastest answers wins.

<u>Quizlet</u> - a website that allows students to create and share flashcard sets for studying. Also provides resources for studying and creating practice quizzes.

Creativity:

<u>SolidWorks academic license</u> - a computer-aided design (CAD) software is necessary for use with the 3D printer. There are free, online softwares, but students can create a SolidWorks account and download one of the industry's leading software for free.

Drawing software:

<u>Krita</u> - a drawing program that is suitable for more advanced artists, but that can be used by almost all ages. It is open source and free; would work best on a tablet with a stylus or with a laptop in conjunction with a Wacom tablet.

 \underline{Tux} - a drawing program specifically designed for aspiring artists ages 3-12. It is also a free software, and would work best on a touch screen (tablet or Wacom tablet).