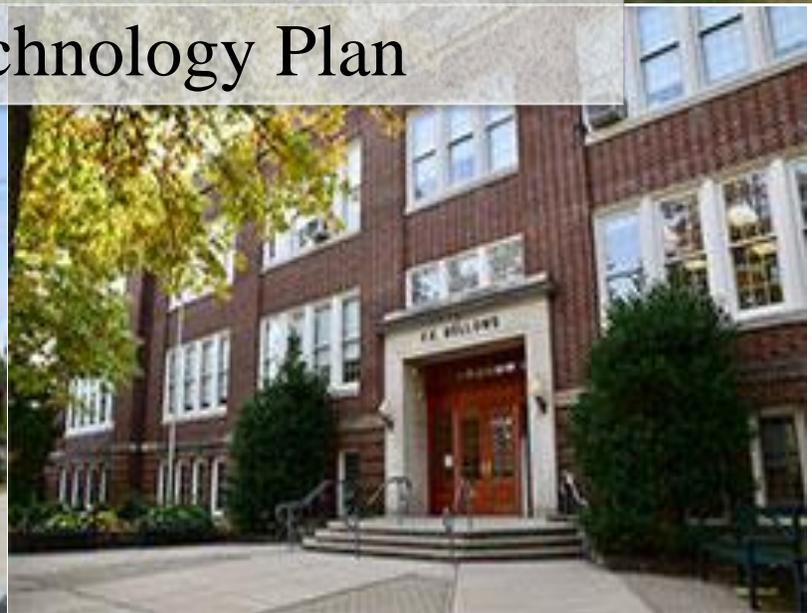# 2020-21 Remote Learning and Classroom Technology Plan

JUNE 5, 2020

Rye Neck Union Free School District

2020-21 Remote Learning and Classroom Technology Plan

Board of Education Approval Date: June 10, 2020

RyeNeckSchools

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Introduction

Given the uncertainty of the COVID-19 pandemic, the Rye Neck UFSD has compiled a scenario-based approach to classroom technology for the 2020-21 school year. The multifunctional purchases in this plan all serve to enhance our students' education and provide a continuity of instruction regardless of the scenario. The approach focuses on maximizing instructional resources for in class and home learning, while establishing safe, equitable access to necessary devices for all students.

While any number of scenarios may present themselves, the most likely we are planning around are:

1. Normal Operation
   a. Traditional onsite instruction

2. Social Distancing with Staggered Grades/Classes
   a. This involves teachers on campus and a mix of onsite and home learners

3. All Home Learning
   a. This represents a continuation of the current school closure

While we anticipate variations in these scenarios, they serve as a basis for laying out the necessary infrastructure and allotment of resources. In each scenario, a focus is put on limiting shared physical devices to mitigate the unnecessary spread of communicable diseases.

The foundation of the plan is to ensure a 1:1 student:device ratio using Chromebooks. Grades 3 through 12 will be assigned devices that they are responsible for and will take home with them. Increased devices for K-2 students will help Daniel Warren adhere to CDC guidelines about shared supplies, but devices will reside in the classrooms unless home learning continues and families request a school-issued device.

Lessons Learned from 2020 Spring Session

Teaching is very much about planning and preparation. In a moment's notice, teachers had to adapt to online tools and web-based programs to supplement instruction. Additionally, elementary teachers needed comprehensive online instructional programs that aligned with their curriculum. Much of the free access to the programs and resources teachers and students have been using during this pandemic will retire at the end of June. All of this highlighted our need for access to online programs that can seamlessly transition between the classroom and home learning.

With every teacher using online platforms to communicate with and instruct their students, there was a continuous demand for student devices at home to support learning and access to assignments, which served as the basis for our decision to increase the supply of student devices throughout the district.

We understand the need to implement standardized practices for live instruction across the grades. Teachers and students will migrate over to Google Meet for synchronous instruction, as the video-conferencing program is included with our G Suite platform. Additionally, it allows for a common platform to be used across the grades and it maintains student security in a closed environment under our Google management system.

2020-21 Remote Learning and Classroom Technology Plan

Base Assumptions:

1) During the summer break, all existing district Chromebooks will be returned, catalogued, data wiped, physically cleaned, and redistributed to students for the 2020-2021 school year.

2) Students will utilize Rye Neck provided equipment, which will remain filtered by the District as required by federal guidelines.

3) Teachers will be provided with dedicated 14" Chromebooks, a wired mouse, and stylus to support instruction and communicate with students.

4) District will utilize cloud-based instructional tools and resources.
   a) This involves expanding many existing resources currently being used by smaller groups throughout the district, as well as programs they have used at home during the current home-learning period.

5) District will fortify existing networking infrastructure to ensure capacity for large scale video conference hosting, as well as the ability to quickly ramp up bandwidth to address potential increase in demand.

Scenario 1: Normal Operation

In this scenario, classes return to standard instructional procedures, with teachers and students back in the classroom. However, the increase in devices, along with the 1:1 model for grades 3-12, will limit the potential spread of communicable disease due to shared equipment. Teachers will also benefit from the addition of a Chromebook to their existing classroom PC, which will enable them to expand their instructional resources. With the move to cloud-based resources, any potential outbreak-related closure can be managed by seamlessly transitioning to Scenarios 2 or 3.

Scenario 2: Social Distancing with Staggered Grades/Classes

In this scenario, teachers will provide instruction from the classroom. However, the number of students onsite will be limited by social distancing requirements. Teachers will have increased flexibility to communicate and connect with students at home through their teacher device while using the classroom whiteboard and web-based tools for instruction. Whether students rotate days onsite, each student will utilize his assigned Rye Neck Chromebook to maintain a common experience.

Scenario 3: All Home Learning

In this scenario, teachers will provide instruction utilizing the G Suite platform as the basis for classroom discussions (Google Meet), assignments (Google Classroom), and communication (Gmail). Students will utilize their assigned Rye Neck Chromebook to connect to live classes, as well as perform classwork and submit assignments. Web-based instructional programs and tools will support additional methods to provide instruction and enhance education.

Schedule A: Hardware Expenditures

Item	Category	Quantity	Total Cost ($)	Details
ASUS Chromebook Flip C214MA YS02T	Chromebook	400	$ 160,000	Chromebooks for student use; will be assigned individually to students to have their data, learning tools, and video conference abilities on hand at all times, on and off campus
ASUS Chromebook Flip C434TA	Chromebook	150	116,543	Chromebooks for teachers; will be assigned individually for teachers to have their data, instructional tools, and video conference abilities on hand at all times, on and off campus
Fortinet FAP-U431F-A	Wireless access point	160	113,350	Wireless Access points; ensure Chromebook and other wireless device connectivity so that all points within the district have internet access for both on-site and remote learning
Fortinet Fortigate 1800F	Network Firewall/ Switch	2	102,960	Connects Rye Neck intranet to internet; controls and directs internet traffic and network infrastructure; upgrade from current equipment to support increased internet usage by remote learning tools
Fortinet FortiSwitch-1048E	Network switch	7	68,000	Connects all internal networking points (access points, PC's, and other network devices) with managed connections to the FortiGate Firewall

Item	Category	Quantity	Total Cost ($)	Details
Google Chrome Management Console License	Management License	550	19,250	Licensing for new Chromebooks to be managed under the Rye Neck Google domain; required for each device owned and managed by the district
Fortinet FAP-U422EV-A	Outdoor Wireless access point	5	8,000	Outdoor wireless access points; ensure Chromebooks and other wireless device connectivity so that all points on the district campus have internet access for both on-site and remote learning
Logitech C930e	Audio/video input device	60	6,809	Facilitates classroom video conferencing
Targus CityLite 14" Notebook Case	Notebook/Chromebook carrying case	150	5,133	Carrying case for teacher Chromebooks
CODi Capacitive Stylus	Input device/stylus	150	1,521	Touchscreen Stylus for teacher Chromebooks
Logitech M100 USB Wired Mouse	Input device/mouse	150	1,245	Mouse for teacher Chromebooks
TOTAL EQUIPMENT COST				**$ 602,810**

Schedule B: Cloud Based Resource Subscriptions

Resource	Grade Level	Annual Cost ($)	Details
Annotate	K-12	$ 9,594	Makes any device an interactive, mobile whiteboard. Students have the ability to join the live class to get class notes in real-time or access them at a later time to review information. The program syncs with Google Classroom.
Screencastify with Submit	K-12	3,800	Through this web-based extension, teachers can record their screens with audio to create comprehensive video lessons for students. The Submit feature provides an interactive response method for students. The program syncs with Google Drive.
Kami	K-12	2,925	This document writer syncs to Google Drive and Google Classroom through a domain extension available to students and teachers. Teachers can distribute worksheets and PDFs to students instead of making copies. The program's writing tools allows students to annotate the document and return it to their teacher.
GoGuardian	K-12	8,400	The Chromebook management system currently used in grades 6-12 will be expanded to all Rye Neck student accounts. Program provides student account filters on district devices to uphold legal compliance under federal guidelines.
I-Ready	K-5	18,519	I-Ready Assessment has been our district screener and has proven to provide actionable data for our Reading and Mathematics instruction. The program provides targeted lessons that align with student assessment and our curriculum.

Resource	Grade Level	Annual Cost ($)	Details
Dreambox Math	K-5	9,750	This program has been designed to boost student's mathematical performance and is engaging. It's highly individualized so that the lessons meet a student where they are. This would support students where "gaps need to be filled" or those students where "extending" what they can do beyond the classroom is needed.
Raz-Kids	K-5	3,800	This program provides students with hundreds of interactive books at their developmentally appropriate independent reading level. Students can read texts at their level and in their areas of interest, increasing confidence and skills.
TOTAL SOFTWARE AND RESOURCE COST			**$ 56,788**

Schedule C: Budget Lines Supporting Technology and Remote Learning Expenses

To support the remote learning and classroom technology plan, the district has utilized the existing 2019-20 budget lines for computer education, equipment, supplies, software and services. In order to meet the stated goals for supporting classroom technology and remote learning, the district has also supplemented the technology investment with budgetary savings accrued through the extended school closures this year. The majority of these closure related savings were in the transportation area, and service & supplies areas across the budget.

As one might expect, procuring equipment and software to support classroom and remote learning in the present economic climate is subject to the same type of supply chain challenges (increased demand & costs, scarcity, production delays, backorders) experienced with high-demand products across the private and public sectors. The district is working with vetted Government and Local bid vendors to ensure orders can be fulfilled at the lowest cost and orders are delivered in time for installation and setup for Fall 2020.

Description	Amount ($)
Total Technology & Remote Learning Expenses (sum of schedules A and B)	**$ 659,598**
Budget Lines Supporting Technology & Remote Learning	**Amount ($)**
Instructional Technology budget available to support classroom technology & remote learning upgrades	$ 263,100
Other departmental technology budget lines and unexpended District software, across the budget	52,995
Transportation savings as a result of school closure (April - June)	305,962
Service and supply savings as a result of school closure	37,541
Total	**$ 659,598**