



COVID-19: Creating Elementary School Schedules to Support Social Distancing

DMGroup Research Briefs

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Introduction

The CDC, WHO, and state and local agencies are issuing guidance regarding the health and safety measures required for a safe return to school. Districts and schools are working aggressively to put together plans to abide by these social-distancing guidelines, but given the resource constraints (e.g. PPE, transportation, facilities, staffing), this planning is highly complex. For most districts, return to a full day of in-person instruction while adhering to social-distancing guidelines is not possible. Strategic scheduling is needed to allow students to have some in-person instruction while keeping all the needed health and safety measures in place.

The following research brief outlines several considerations that should be reviewed as part of your return to school planning. These include (1) an assessment of constraints, (2) scheduling models and options, (3) defining student attendance cohorts, and (4) reviewing and revising your instructional minute guidelines. Meaningful exploration of these items will help you develop strong schedules that meet the needs of your school and district while aligning with health and safety guidance.

Understanding District and School Constraints

Incorporating social distancing guidelines will impact every aspect of the school day from transportation to arrivals and departures to classroom capacity, and more. Consider a few of the most common constraints (transportation, arrivals/departures, classroom sizes, and staffing) and ask yourself the following questions:

1. Can all students get safely to and from school each day while observing social distance guidelines?
2. Can we safely manage the arrival and departure of all students at the same time each day?
3. Do we have enough classrooms to safely support all students each day?
4. Do we have enough staff to cover each classroom?

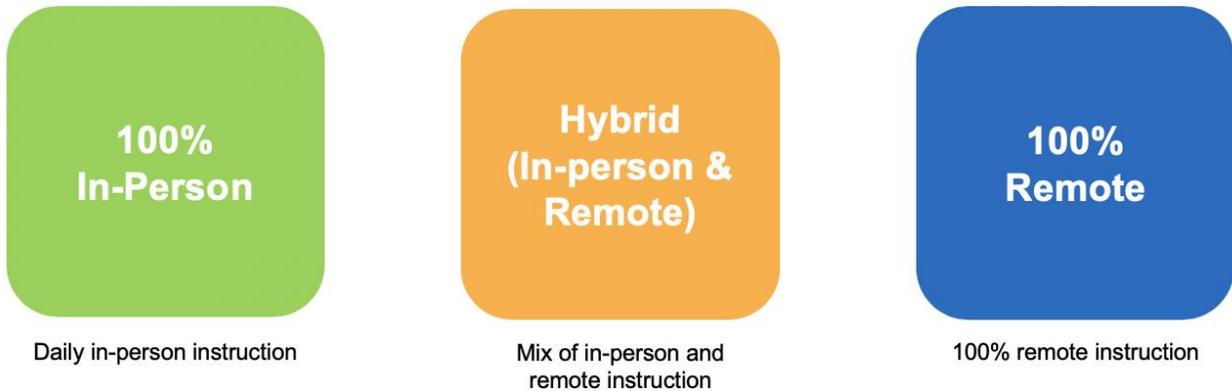
If you answered no to any of these questions, consider how you could optimize your current resources to create opportunities to overcome or reduce these constraints. For example, can more students be driven to school to reduce the impact of lower bus capacity? To minimize the congregation of students during arrivals and departure, can you safely redirect grades to different building entrances and exits? How can shared spaces be repurposed differently to create more classrooms or other required spaces?

Once you've exhausted how you can maximize your existing resources, determine what additional resources are needed (e.g. increased bussing, leased space, hiring staff, etc.). How viable are these options? Understanding your constraints clearly and realistically is the first step needed to select the right schedules for your school community.



Selecting the Right Model

There are 3 high level models that are being discussed nationwide:



Based on extensive use of 100% remote models over recent months, most educators are more familiar with this approach and are actively refining their practices based on their experiences of what worked well and what needs to be improved.

Socially-distanced in-person models and hybrid variations raise more questions and are less familiar. These models include full day, staggered start and end times, AM/PM, A/B, semi-weekly, bi-weekly and so on. Picking the right model and/or models is highly dependent on your school and district constraints, goals, and objectives.

While not exhaustive, we provide some examples below of socially-distanced in-person schedules and hybrid schedules that schools are considering. In each of these examples, we are asserting that health and safety guidelines must be adhered to and that the opportunity to attend in-person instruction is extended to all students. We are also assuming that you may make more in-person opportunities available to students who require greater support (e.g. special education, ELL, higher risk, those without proper access to technology and related supports).

Lastly, while we do not share detailed 100% remote scheduling examples in this brief, we understand that some students, and potentially staff, will not be ready to return to in-person instruction due to health, personal or other concerns. We recommend that any in-person schedule (100% in-person or hybrid) is accompanied by a 100% remote schedule option for this group.

Schedule Models

100% In-person

100% in-person models accommodate daily, full-day, in-person instruction with modifications to abide by social distancing guidelines.

While not commonplace, some schools are able to have all students return to a full day of in-person instruction every day. This may be accomplished with existing resources or a combination of existing resources and changes in operations, instruction, and other resources.



Some examples of strategies to mitigate constraints have included changing guidelines for bussing eligibility, increasing student drop off and pick up volume and timelines, leasing additional space, and hiring temporary staff.

100% In-person: All Students, Every Day, All Day

This model allows for a full day, every day, for all students, with common arrival and departure times closely resembling the traditional school day. Adjustments to the schedule to accommodate social distancing guidelines often include reduced transitions to and from the classroom (e.g. changes to lunch and recess), limiting activities that require use of shared materials (e.g. modified specials), and limiting interactions amongst separated cohorts of students (e.g. changes to arrival and departure flow and operations). Many schools are also adding scheduled times for handwashing and mask breaks.

100% In-person: All Students, Every Day, Staggered

If transportation (i.e. bussing) and arrivals and departures are constrained but facility space and staffing is sufficient, some schools may adopt a school day with staggered start and end times for different groups of students or “cohorts”. By offsetting the start and end times, some schools are able to manage transportation challenges (i.e. adding buses or increasing routes) and reduce the number of students present in common areas at the same time. Once in classrooms, the balance of the school day is managed to avoid common transitions and coordinate hallway and common area movement for students and staff.

Some of the benefits of this model include reduced bussing and arrival and departure congestion, schedule consistency, ability to create cohorts across all grades to reduce common area (e.g. grade “wing”) student density, and increased support for specials.

An example of this model is as follows:

100% In-Person: Full Day Staggered Start and End Times

	K		1		2		3		4		5	
	K.1	K.2	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2
8:00am	8a Arrive		8a Arrive		8a Arrive		8a Arrive		8a Arrive		8a Arrive	
8:15a - 10:30a	English Language Arts		English Language Arts		English Language Arts		English Language Arts		Specials		Specials	
9:00am	8:45a Arrive	English Language Arts	8:45a Arrive	English Language Arts	8:45a Arrive	English Language Arts	8:45a Arrive	English Language Arts	9:05a - 9:35a I/E	9:05a - 9:50a Specials	9:05a - 10:35a English Language Arts	9a - 10:30a English Language Arts
10:00am							9:45a - 10:15a I/E		9:40a - 11:10a English Language Arts			
10:30a - 11:15a	Science/Soci Studies		10:35a - 11:20a Specials		10:30a - 11:15a Science/Soci Studies		10:30a - 11:05a Specials	10:30a - 11a I/E			10:35a - 11:05a I/E	10:30a - 11a I/E
11:00am												
11:15a - 12:15p	Lunch / Office Hours		11:25a - 12:25p Lunch / Office Hours		11:15a - 12:15p Math		11:10a - 12:10p Math		11:20a - 12:20p Lunch / Office Hours		11:10a - 12:10p Lunch / Office Hours	11:05a - 12:05p Lunch / Office Hours
12:00pm												
12:15p - 1:15p	Math		12:30p - 1:15p Science/Social Studies		12:20p - 1:20p Lunch / Office Hours		12:15p - 1:15p Lunch / Office Hours	12:15p - 1p Specials	12:25p - 1:25p Math	12p - 1p Lunch / Office Hours	12:15p - 1:15p Math	12:15p - 1p Specials
1:00pm												
1:20p - 2:05p	Specials	1:20p - 2:05p Science/Soci Studies	1:20p - 2:20p Math	1:20p - 2:05p Specials	1:25p - 2:05p I/E	1:25p - 2:10p Science/Soci Studies	1:20p - 2:05p Social Studies	1:05p - 2:05p Lunch / Office Hours	1:25p - 2:10p Science	1:05p - 2:05p Math	1:15p - 2p Science	1:05p - 2:05p Math
2:00pm												
2:10p - 2:50p	I/E	2:10p - 2:55p Specials	2:25p - 2:55p I/E	2:10p - 3:10p Math	2:10p - 2:55p Specials	2:15p - 2:55p I/E	2:10p - 2:55p Science	2:10p - 2:55p Social Studies	2:15p - 3p Social Studies	2:05p - 2:50p Science	2:05p - 2:50p Social Studies	2:05p - 2:50p Science
3:00pm												
3p	Dismiss	3p - 3:40p I/E	3p Dismiss	3:10p - 3:40p I/E	3p Dismiss	3p - 3:45p Specials	3p Dismiss	3p - 3:45p Science	3p Dismiss	2:55p - 3:40p Social Studies	3p Dismiss	2:55p - 3:40p Social Studies
4:00pm		3:45p Dismiss		3:45p Dismiss		3:45p Dismiss		3:45p Dismiss		3:45p Dismiss		3:45p Dismiss



The different colored boxes indicate different subjects throughout the school day. Start and end times are offset, for different cohorts within each grade (e.g. K.1 vs. K.2), to reduce bussing constraints and student density in common areas during certain parts of the day. All grades attend school for a full day each day.

Hybrid

If the constraints of bussing, arrivals/departures, space, and staffing are too large to mitigate, you will likely need to consider hybrid schedule options. These hybrid models accommodate a combination of in-person and remote instruction.

Hybrid: AM/PM

If you are prioritizing daily in-person instruction amidst transportation, transition, space and staffing constraints, an AM/PM model may suit your needs. This hybrid model uses the same alternating approach as other hybrid models, but targets AM vs. PM for in-person vs. remote instruction. This model will require a larger transition period in the middle of the school day to manage dismissals and arrivals. Managing lunch services will also require some additional planning and introduce new constraints.

Some of the benefits of this model include daily in-person instruction, reduced concurrent demand for bussing, reduced number of students during some arrivals and departures, schedule consistency, and ability to create cohorts across all grades to reduce common area (e.g. grade “wing”) student density. If, with approximately half of your students in attendance, you have some additional capacity, you may have an opportunity to increase in-person attendance for your higher-need students.

The following is an example of an AM/PM hybrid schedule:

Hybrid: AM/PM

	K.AM		K.PM		1.AM		1.PM		2.AM		2.PM		3.AM		3.PM		4.AM		4.PM		5.AM		5.PM	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
7:55am	7:55a Arrival																							
8:10a	8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning		8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning		8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning		8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning		8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning		8:10a - 11a CORE Instruction (On Campus)		8:10a - 10:40a Distance Learning	
8:55am																								
9:55am																								
10:55am	10:40a Tran																							
11:15am	11a - 12p AM/PM Transitions																							
11:55am	12p Tran		12p - 2:50p CORE Instruction (On Campus)		12p Tran		12p - 2:50p CORE Instruction (On Campus)		12p Tran		12p - 2:50p CORE Instruction (On Campus)		12p Tran		12p - 2:50p CORE Instruction (On Campus)		12p Tran		12p - 2:50p CORE Instruction (On Campus)		12p Tran		12p - 2:50p CORE Instruction (On Campus)	
12:25pm	12:20p - 2:50p Distance Learning																							
1:55pm																								
2:55pm	2:50p Dismiss																							

The green columns indicate in-person instruction and the yellow columns indicate remote learning. Instruction location alternates between morning (AM) and afternoon (PM) with 2 cohorts (e.g. K.AM vs. K.PM) of students.

Hybrid: A/B Cycles

One of the most common hybrid models that schools are evaluating are “A/B” models. In this model, students within the same classroom are grouped into two cohorts (Group A and Group B) that alternate between in-person and remote instruction. Some of the benefits of this model include reducing the same day demand for bussing, reduced number of students during arrivals and departures, schedule consistency, and ability to create cohorts across all grades to reduce common area (e.g. grade “wing”) student density. If having only half of your students attending in-person leaves you with some additional capacity, you may have an opportunity to increase in-person attendance for your higher-need students.

The A/B model can vary greatly. Some common arrangements are as follows:

- **Alternating days (semiweekly):** A/B/A/B: 1 day in-person followed by 1 day remote.
- **Alternating 2 days (semiweekly):** AA/BB: 2 days in-person, followed by 2 days remote
- **2-week cycles, for example:**
 - Group A attends in-person 3 days during week 1, and 2 days during week 2
 - Group B attends in-person 2 days week 1, and 3 days week 2
- **Alternating weekly:** 1 week in-person, 1 week remote

There are other variations to the above. Schools are considering constraints, grades/ages, staffing strategies, schedule consistency, and learning goals to determine which submodel best meets their needs.

Many schools are also including a “C” or extra day to maintain a consistent weekly schedule. The “C” day is used to support remote learning and activities that are effectively supported in a remote setting (e.g. planning, some student services).

The following is an example of an A/B schedule with an all-remote C day:

Hybrid: A/B/A/B/C Day OR A/A/C/B/B Day



The green columns indicate in-person instruction and the yellow columns indicate remote learning. In-person instruction alternates between 2 cohorts of students (i.e. cohort “A” and cohort “B”). A/B days can alternate (A/B/A/B), be consecutive (AA/BB), or alternate by week (A week, B week). A common variation is the addition of a “C” day to create a consistent, recurring weekly schedule. The result is 2 “A” days/week, 2 “B” days/week, and 1 “C” day when all (or most) students are learning remotely.

Hybrid: A/B/C/D/E Cycle

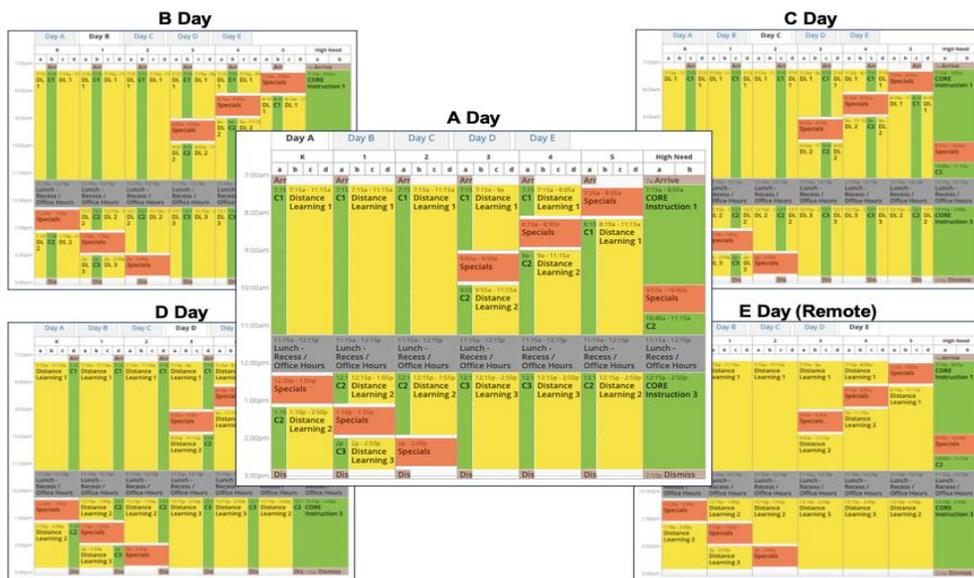
When wrestling with very limited space, you may not be able to accommodate all students with just two cohorts (“A” & “B”) and may need to divide your students into more cohorts in order to abide by social distancing guidelines. In this example, students are divided into 5 cohorts (A, B, C, D, E), with each cohort attending in-person one day a week while creating capacity for higher-need students to attend more frequently. Schools that can accommodate the majority of students in 4 cohorts may add an “all remote” day to maintain a consistent weekly schedule cycle. This “all remote” day is often used to support remote learning and activities that are effectively supported in a remote setting (e.g. planning, some student services).

Some of the benefits of this model include further reduction in the same day demand for bussing, even fewer students present during arrivals and departures, schedule consistency, and ability to create cohorts across all grades to reduce common area (e.g. grade “wing”) student density. Like other models, additional capacity may create an opportunity to increase in-person attendance for your higher-need students.

This reduced in-person frequency model has also been adopted by some secondary schools. This model can help accommodate various secondary constraints. Using this model at a secondary school can also create access to additional facility space if there are certain days when secondary students are not in school. The days when the secondary school is not in use can be used by schools and students with greater space constraints or for younger students who may benefit from attending school more frequently. This variation is shared here to note that some models may be used in combination with one another. This may help you maximize your facility spaces and address benefits of increased in-person instruction for some grades or students.

The following is an example of an A/B/C/D/E schedule:

Hybrid: A/B/C/D/E Day



The green columns indicate in-person instruction and the yellow columns indicate remote learning. In-person instruction cycles between 3 or more cohorts of students. An all remote day (shown above as “E”), may be used to support a day of remote learning for all students while creating opportunities for common planning time, PD, and addressing student specific interventions and supports amongst other student and school based needs. The above example also exhibits daily attendance for one of the cohorts (e.g. higher need students) shown as a larger green column each day.

Defining Student Cohorts

Once you have determined the schedule models that work best for your district and schools, you need to define student attendance groups. In short, *who* will come to school and *when*? Your student attendance groups are commonly referred to as “cohorts”.

If you have all students attending in-person instruction all day and every day, you have 1 cohort that includes all students for that school. Many districts have students who are “opting out” of in-person instruction. If this is true in your district or school, you will have a minimum of 2 cohorts. One cohort for 100% in-person instruction and another cohort for 100% remote instruction.

When determining cohorts for A/B or other models that are not 100% in person or 100% remote, there are many different approaches to take. A few common approaches for determining cohorts are below, each with its benefits and tradeoffs:

- **By grade or grade level:** Using cohorts of a certain grade or grade ranges helps adapt operations to age appropriate protocols and helps teachers and staff concentrate on different grade level instruction during the course of the day. This can create challenges when considering families (including staff with families) with multiple students in the same school at different grade levels if attending at different points of the day or on different days.
- **By student last name (i.e. goal is by family):** Some schools opt to create cohorts by using last names in an attempt to group families together. If family names are used as primary cohort criteria, you will likely need to create cohorts that are a mix of all grades to balance out the number of students attending at each grade level at any given time.
- **By student address:** Some schools are determining attendance by student address. This can support co-located families as well as reduce the complexities of bus routes. Moreover, many transportation guidelines allow keeping family members in close proximity on buses which may slightly improve bus capacity.
- **By student need (e.g. special education, high-risk learners, student without proper access):** Some schools are creating cohorts based on student need. This may include students with special needs, those that are at higher risk, and students without proper access to materials and technology. Many schools are also increasing the frequency in which these students attend school for in-person instruction. When considering attendance capacity, consider this group of students and be sure to factor them into your overall daily capacity.

A prioritized combination of the above approaches may work best. Once you define your cohorts, you’ll want to consider the frequency of in-person instruction for each and assign them to attendance days (e.g. Day “A” students, Day “B” students, Day “A” & “B” students (e.g. higher need), etc.).

A subsequent step, which is not covered in this brief, is to determine how your staffing model can support each cohort effectively. Staffing models include 1 teacher for each classroom (teacher supports all sections of a traditional classroom), 1 teacher per section (teacher supports smaller classroom group), in-person vs. remote teachers (1 teacher supports in-person instruction while another supports remote instruction for the same students), amongst other models.

Review, Revise and Prioritize Instructional Minute Guidelines



Once you have determined which schedule model to pursue and when each student will have in-person instructional opportunities, examine how this impacts your instructional minute guidelines.

Instructional minute guidelines are used to provide access to a minimum number of daily or weekly minutes of instruction for each grade level subject and to guide scheduling decisions. These guidelines are then used across the district to help ensure access to instruction for all students before determining how to best support the needs of each student.

When access to in-person instruction is reduced or paired with remote instruction, it is important to prioritize the learning activities that are best suited for in-person instruction. This requires you to define the focus of in-person instructional opportunities for each grade level. Some schools are focusing on core instruction when school starts in order to help identify and mitigate COVID-19 and summer slide learning loss. Their instructional guidelines are heavily weighted towards reading and math with this in mind. Additionally, they are preserving in-person instruction for greater individual support of students — helping them work through core concepts they may be wrestling with. Remote instruction focuses on activities that can be successfully accomplished remotely such as independent reading, worksheets, and assessments.

As the saying goes, you can schedule anything, but you can't schedule everything. It is important to determine student learning goals and how these will influence what is best taught in person and how your available in-person instructional minutes will be assigned to meet these goals.

Determining the activities that can be delivered with impact and fidelity remotely is just as important as defining in-person activities. As you work through instructional priorities and the use of instructional minutes for remote learning, also consider whether instruction will occur synchronously or asynchronously. Will instruction occur at the same time for all remote students in a grade? Will remote students be able to join their in-person peers virtually while remote? Will remote students focus on independent learning opportunities? What student support services can be delivered just as effectively remotely as in-person? What role does technology and access play in remote learning settings? What new activities are required for remote learners (e.g. teacher office hours) that aren't part of traditional schedules? Also consider the length of remote learning segments and how they should differ from the duration of in-person instruction, incorporate screen breaks, and other remote learning accommodations.

When revising instructional guidelines, consider how your traditional minutes of instruction (e.g. ELA 90 minutes) can be componentized (e.g. Read Aloud, Independent Reading, Phonics, Small Group, etc.) and assigned effectively to different modes of instruction.

Steps to Review and Revise Instructional Minutes



Subject	Daily Minutes
Reading	90
Writing	30
Math <small>[No Title]</small>	60
Intervention	30
Lunch	25
Recess	20
Specials	45
SS / Sci	45

- Define subjects that students and staff should experience in-person as much as possible.
- Identify subjects and activities that students and staff can successfully experience remotely.
- Prepare clear guidelines to support interventions, special education and related services?

Revise instructional minute guidelines to adapt to current priorities and different modes of instruction.

Subject	Daily Minutes	
	In-person	Remote
Reading	?	?
Writing	?	?
Math	?	?
Intervention	?	?
Lunch	?	0
Recess	?	0
Specials	?	?
SS / Sci	?	?

Conclusion

Figuring out how to manage through the COVID-19 pandemic has been and likely will continue to be extremely challenging for education leaders. Now, perhaps more than ever, people have an appreciation for what an important role education plays in the lives of students, families, communities, and the economy. Getting “back-to-school” is so important to so many for so many reasons and everyone is clamoring for leaders to figure out how to return students to school in the face of the tremendous uncertainty surrounding COVID-19.

Education leaders are being bombarded with issues, questions, and problems to solve. It is difficult to figure out what to tackle first. While scheduling never seems like the burning issue of the day, we believe it is key to getting students “back-to-school” in some fashion, and perhaps most importantly, to get them back to learning.

Exploring the ideas presented herein can help you develop schedules that accommodate various challenges introduced by social distancing. We also advise you to develop schedules for other scenarios in the event you need to pivot from in-person to hybrid to remote at any point this coming academic year.

As we saw in March, quick pivots may be necessary. It is important to be prepared and engage in scenario planning. We believe that having powerful scheduling tools is extremely helpful in creating, communicating, and iterating various scheduling models and schedules, weighing tradeoffs, and quickly shifting between different models based on changing circumstances. Making the most of the time you have with students will be particularly critical this year as you incorporate social-distancing guidelines and navigate your resource constraints.

Having long believed in the power of scheduling to improve not only use of time but to improve academic results, DMGroup developed a powerful elementary scheduling solution, DMSchedules, which was used to generate the sample schedules provided above. If you have a scheduling tool you are using, we urge you to make use of it and do the much-needed scenario planning now. If you don’t yet have an elementary scheduling tool, please contact us (scheduling@dmgroupk12.com) to learn more so that you can be ready with the variety of schedules that may be needed in the school year ahead.

