



# K-12 School COVID-19 Relative Risk Index

## Transportation to and from school

## Routine classwork

## Lunchtime

Assuming 6 feet of distancing at all times

## Arts & Humanities

## Recess & Athletics

Low	Walk or ride a bicycle 	Low/Medium	Desk-based instruction 	Low/Medium	Picking up prepackaged meals 	Low/Medium	Art Indoor 	Low/Medium	Outdoor playground 
Low	Automobile Household members only 	Low/Medium	Shop/Vocational-technical 	Low/Medium	Outdoor eating 	Low/Medium	Supervised clubs/Organizations 	Low/Medium	Outdoor non-contact sports 
Medium	Automobile Carpool/non-household members 	Low/Medium	Going to the restroom 	Medium	Cafeteria lunch line 	High	Band/Orchestra 	Medium	Indoor non-contact sports 
High	School bus 	Medium	Unmonitored study hall 	Medium	Indoor eating Classroom 	High	Choir 	High	All contact sports, indoor or outdoor 
High	Public transportation (Subway, bus) 	Medium/High	Lockers/Changing rooms between classes 	Medium/High	Indoor seating Cafeteria 	High	Drama performances 	High	Locker rooms 

## Risk Reducing Actions

1. Classes outdoors (e.g., using tents)
2. Maximum class size of 10–15 students
3. Open classroom windows
4. Stagger drop-off and pick-up times
5. Pod students in groups
6. Switch teachers between classes, not students
7. Limit shared items
8. Make unused spaces classrooms (e.g., gyms and band rooms)

Ezekiel J. Emanuel, MD, PhD Perelman School of Medicine at the University of Pennsylvania  
 James P. Phillips, MD George Washington University School of Medicine and Health Sciences  
 Saskia Popescu, PhD, MPH University of Arizona/George Mason University

### SOURCES:

CDC (<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/guidance-for-schools.html>)  
 NASEM (<https://www.nationalacademies.org/our-work/guidance-for-k-12-education-on-responding-to-covid-19>)