



# ALPHABETTER® DESK STANDING HEIGHT GUIDELINES

» **Standing Classroom Set-Up Instructions**

1. Consider the grade(s) of children that will use the classroom desks
2. Refer to the grade guideline chart for suggested range of desk heights
3. Adjust desks to three different heights per classroom (25% of the desks for low heights, 50% at medium heights and 25% at higher heights)
4. Arrange desks to support desired teaching style (i.e., group together pods of 4 desks for project-based learning, row-by-row for traditional lecture, etc.)
5. Fine tune any desk heights to children who have specific needs (sitting, mobility restrictions, older/younger students, etc.)

## HEIGHT ADJUSTMENT GUIDELINES

Classroom	Classroom Set-Up Recommendations AlphaBetter® Standing Desk Range 26 to 42¼" adjustable in ¼" increments		
Kindergarten	Low = 26"	Medium = 27¼"	High = 28½"
1 <sup>st</sup> grade	Low = 26"	Medium = 27¼"	High = 29¾"
2 <sup>nd</sup> grade	Low = 26"	Medium = 28½"	High = 31"
3 <sup>rd</sup> grade	Low = 27¼"	Medium = 29¾"	High = 33½"
4 <sup>th</sup> grade	Low = 28¼"	Medium = 32¼"	High = 36"
5 <sup>th</sup> grade	Low = 29¼"	Medium = 33½"	High = 37¼"
6 <sup>th</sup> grade	Low = 31"	Medium = 34¾"	High = 38½"
7 <sup>th</sup> grade	Low = 33½"	Medium = 36"	High = 39¾"
8 <sup>th</sup> grade	Low = 34¾"	Medium = 38½"	High = 41"
9 <sup>th</sup> grade	Low = 36"	Medium = 39¾"	High = 42¼"
10 <sup>th</sup> grade	Low = 36"	Medium = 39¾"	High = 42¼"
11 <sup>th</sup> grade	Low = 37¼"	Medium = 41"	High = 42¼"
12 <sup>th</sup> grade	Low = 38½"	Medium = 41"	High = 42¼"

Source - Bodyspace: Anthropometry, Ergonomics and the Design of Work - Pheasant, S. 2<sup>nd</sup> Edition



## » **Methods**

The AlphaBetter® Desk standing height guideline chart was developed using established anthropometric design methods<sup>1</sup>. Information was drawn from population-specific user data<sup>2,3</sup> (children ages 5 to 17) and compared with distribution boundary conditions (5<sup>th</sup> percentile female and 95<sup>th</sup> percentile male), the statistical mean (50<sup>th</sup> percentile female/male) and any given standard deviations. Each K-12 grade is provided guidelines for standing heights based upon ergonomic recommendations that considers two factors:

1. Standing elbow height for the student—elbows are bent at a 90-degree angle from the floor
2. Type of classroom activity performed by students

Based upon a review of typical classwork activities the movements were classified as a combination of light work (<10 lbs.) and precision work elements. The suggested work-surface heights for classroom activities are therefore best-performed +/- 2 inches from the standing elbow height<sup>2,4</sup>. Each desk may be adjusted to any specific student's individual needs as needed; however, anthropometric data follows a normal distribution and therefore three desk heights measures (low, medium, high) can be suggested for each class to make sure students can work effectively.

- » Lower desk heights were recommended based upon 5<sup>th</sup> percentile girl's anthropometry
- » Medium desk heights were recommended based upon 50<sup>th</sup> percentile girls and boy's anthropometry
- » Higher desk heights were recommended based upon 95<sup>th</sup> percentile boy's anthropometry

### Design Resources

1. Roebuck, John (1995) *Anthropometric Methods: Designing to Fit the Human Body*. Santa Monica, CA: Human Factors and Ergonomics Society ISBN 0-945289-01-4
2. Sanders, Mark S.; McCormick, Ernest J. (1993). *Human Factors in Engineering and Design* (7<sup>th</sup> ed.). New York: McGraw-Hill. p. 704. ISBN 978-0070549012
3. Pheasant, Stephen (1986). *Body space: anthropometry, ergonomics, and design*. London; Philadelphia: Taylor & Francis. ISBN 0-85066-352-0.
4. Grandjean, Etienne (1988). *Fitting The Task to the Man: A Textbook of Occupational Ergonomics*, 4<sup>th</sup> edition. Taylor & Francis



[www.safcoproducts.com/alphabetter](http://www.safcoproducts.com/alphabetter)

Part of the Active Collection line; The Active Collection products are designed to promote active movement throughout the day and engage major muscle groups to help combat the negative effects of inactivity in many workplaces.