

## Curve of Best Fit

Sometimes data points appear to be related but cannot be represented by a straight line

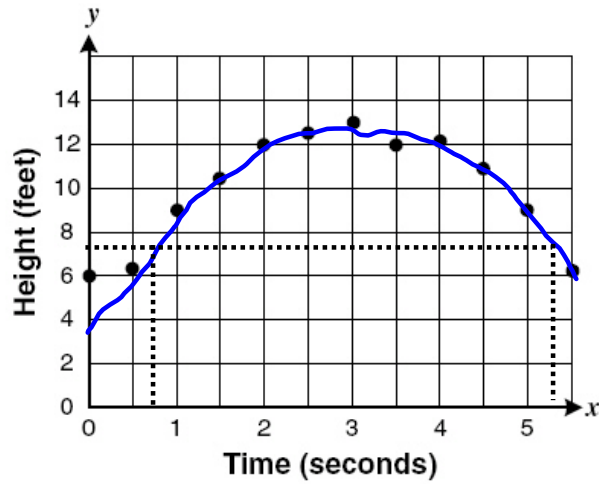
Sometimes it is better to represent the data with a curve

## Curve of Best Fit

The same rules and procedures apply when using curves of best fit as when using lines of best fit

The curve does not need to touch all points but should pass through as many points and be as smooth as possible

We can use a curve of best fit the same as we use a line of best fit, we can make predictions using interpolation and extrapolation)



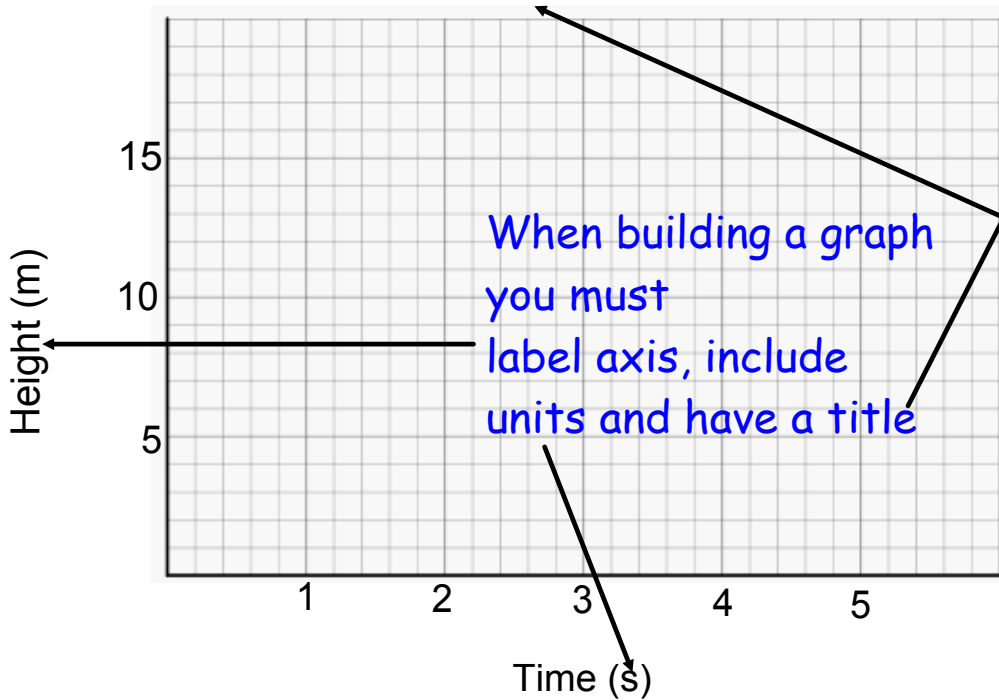
Draw a curve of best fit:

.

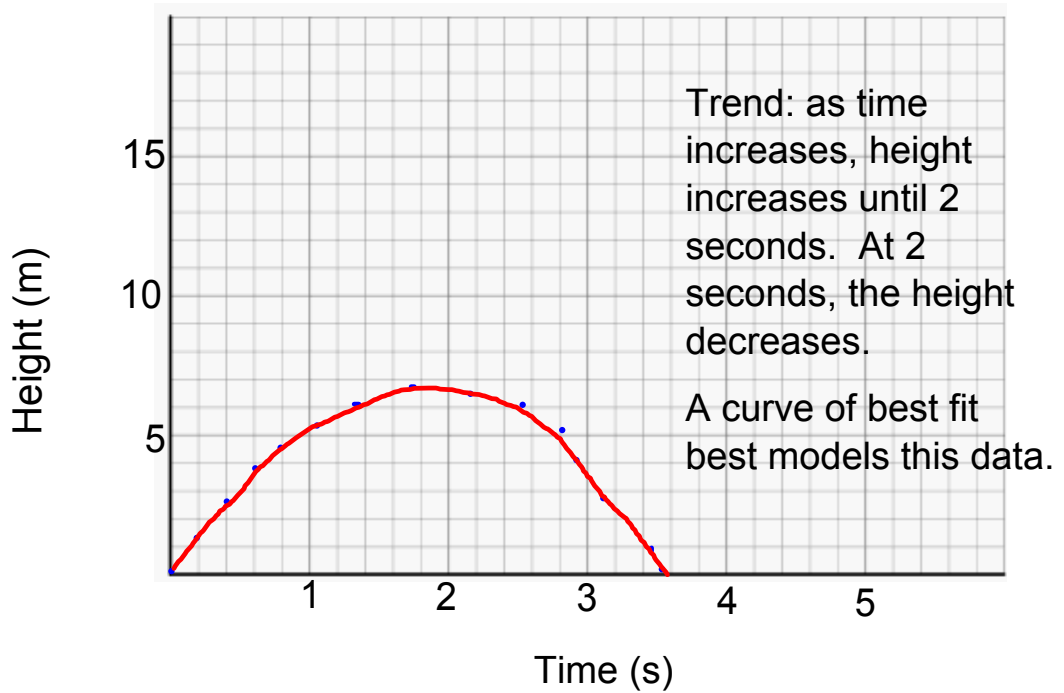
Predict the time when the soccer ball is 7 feet.

The soccer ball will have a height of 7 feet at 0.75 seconds and 5.5 seconds.

The path of a Soccer Ball



### The Path of a Soccer Ball



What is the approximate height at 3 seconds? \_\_\_\_\_

When is the ball at a height of 5 m? \_\_\_\_\_ & \_\_\_\_\_