

PIP 5th Grade Market Math Mania "At Home" Activity

All About Bar Codes...



The following information on barcodes is shared courtesy of the University of California at Davis... Barcodes are numeric tags that are made up of a series of lines that vary in width and correspond to the numbers 0 - 9. These codes are commonly read in using a barcode scanner which reads things in linearly (i.e., type of bar codes that are used in checking out library books).

A more advanced barcode reader is called a laser scanner. This is a 3D reader that can scan "around" an item and get the barcode (provided the code is somewhere near the laser eye).

This is the type used in checkout lines at grocery stores such as Roche Bros. Barcodes are very handy and can be used for a variety of things:

- * **Cataloging items** - *tag items in a collection or inventory as it comes in. Later, you can bring up your inventory by looking at the computer.*
- * **Tagging items** - *The barcode gives information about an item, such as its price, brand, and flavor, etc.*



Originally, bar codes were only used to tag one type of item... trains!! Barcodes were first developed in the railroad business to keep track of which cars went with which engine. The barcodes were imprinted on the side of the railway cars that went with a particular "system" at a uniform height above the ground. The barcode of the different cars could then be read together to compile information on that particular grouping; what station they came from, where they were headed, etc. In this way trains could be brought in and sent back out "automatically".

When the business world realized how well this system worked, these "railway barcodes" changed into the UPC system we are all familiar with. Bar codes make product management easier and allow stores to keep track of how much of a given product is sold and what items are most popular. The UPC or, Universal Product Code, is now used on almost all manufactured goods. This form of the barcode is standardized so the UPC for a given product is the same everywhere, and it's necessary to "register" your product to get one. In the United States, the *American Manufacturing Association* has this job.

One interesting thing about UPC codes is that they were developed and standardized *before* barcode readers were developed! Those developing the system were confident that the technology would eventually come about to make reading the codes easy.

The next time you buy something at the store, take a closer look at the bar code!! If you are interested learning even MORE about how barcodes work, visit the website:

<http://electronics.howstuffworks.com/upc.htm>