#Trending

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2021 extern at the Merrill Company

The Merrill Company
- The warehouse division of Arnold Motor Supply created in the 1960's.
- Keep up with demand for a massively diverse array of auto parts in a timely manner.
- Supplies over 50 stores and online orders on a daily basis.
- Analyzes sales data to predict supply and demand.

Part II: Workplace Focus

The main focus of the workplace is on inventory management, or monitoring trends and analyzing sales data to make efficient predictions.
- Use recent trends to predict future needs
- Gauge seasonality as a factor in sales of products, and smooth data to investigate trends on different time frames
- Ranking best selling products within a given range by analyzing different averages

Part III: Introduce the Problem: #Trending

Students will choose a topic (could be broad or very specific) and analyze the data for trends and patterns to make predictions.

Students will interpret the components of their model in the context of the chosen situation.

Each student/group will create a presentation of some sort (powerpoint, video, website), to be shared with a public panel.

Part IV: Standards, Driving and Essential Questions

S-ID.B.6: Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

- Fit a function to the data; use the function to solve problems in context of the data.

S-ID.C.7 and S-ID.C.8: Interpret the slope and intercept of a linear model in context of the data. Compute and interpret the correlation coefficient of a linear fit.

F-IF.B.6: Calculate and interpret average rate of change.

How can we use data to create a model and make predictions about the future?

Part V: Extern Host Role

Invite several members of the staff at the Merrill Company early on in the project to present some real world applications of monitoring trends. Midway through the project timeframe, they could drop by to see the progress on the student projects and using their experience raise questions the students might not otherwise think of. These staff members could also be a part of the public panels.

Staff: Product Analysts Josh Rusk and Bryan Miller and President Eric Johnson

Part VI: Student Learning

It is encouraged that students investigate data and trends on a topic that has some personal significance; it could be related to a hobby, future career interests, a passion, etc.

Students also have choice in how they put together a final product. It could be a presentation, a video recording, mock news story, or even other creative methods!

There will be at least bi-weekly check-ins regarding project progress, where students will be encouraged to share/explain with other students and reflect on their current status. The students may also realize issues when discussing their projects with visitors. A rough version of the final project will be turned in prior to the final due date for suggestions for improvement.