### **Data Crunchers Event Resources:**

Data Science is an important part of an engineer or scientist’s ability to understand the world around them. Teams should be able to create and interpret data tables, bar graphs, line graphs, pie charts, and pictographs and perform simple experiments to collect data, graph their results and make predictions.

Control + Click to follow the links:

[Data Crunchers 2018 Coaches Clinic Presentation (2019 Rules)](https://docs.google.com/presentation/d/1uYT5PEQlNZhpAp55H5HGe1fRHRA9BDQnfe27jhJHs3s/edit#slide=id.p)

[2018 Data Crunchers Test](https://www.sciencenc.com/2018-data-crunchers-a/)

[Understanding Distributions of Data](https://www.census.gov/schools/activities/math/distributions-of-data.html/?eml=gd&utm_campaign=20181003mssiss1ccpuprs&utm_medium=email&utm_source=govdelivery)

[Accuracy and Precision](https://www.ck12.org/book/CK-12-Chemistry-Concepts-Intermediate/section/3.12/)

[NY Times: What’s going on in this graph?](https://www.nytimes.com/column/whats-going-on-in-this-graph) – Different types of graphs are shown to help students critically think about statistics and what is going on in all these graphs.

[Stats 101: Toolkit](http://community.amstat.org/stats101/home) – Studying real-world problems that show statistics in action.

[Statistics Education Web (STEW)](http://amstat.org/ASA/Education/STEW/home.aspx) – Statistics Lesson Plans

[Census at School](http://ww2.amstat.org/censusatschool/) – Students use statistical problem-solving using their own data to analyze results.

[Common Core Statistics and Probability Resources](http://amstat.org/asa/files/pdfs/EDU-CommonCoreResources.pdf) – Resources that explain the topics of statistics and probability.

[This is Statistics](http://www.thisisstatistics.org/) – Why study statistics?

[The World of Statistics](http://www.worldofstatistics.org/)

[The American Statistics Association](http://amstat.org/ASA/Education/K-12-Educators.aspx#classroom?hkey=09d2addb-f9d1-42a8-bb71-3f395265b531) – More resources used in classrooms and around the globe, explaining more about the world of statistics.

[2017 Coaches Clinic Presentation (with Work It Out and Science Password)](https://docs.google.com/presentation/d/1jFT2GUZXL-ta6wXspGkCaDTTGUZa7s5tdUxcekKnl_4/edit?usp=sharing)

[Example Stations from 2014 Institute](http://www.sciencenc.com/pdfs/resources/elementary/Data-Crunchers-Institute-2014.pdf)

[LEARN NC – Graphing and Measurement Lesson for Grades 2 and 3](http://www.learnnc.org/lp/pages/3519)

[I Teach Bio – List of skill-building activities for metric measurement, graphing, data, and more](http://www.iteachbio.com/skills/skills.htm)

[Math Goodies – Bar graph practice](http://www.mathgoodies.com/lessons/graphs/bar_graph.html)

[The Science Spot – Lesson plans on length, volume, density, etc.](http://sciencespot.net/Pages/classmetric.html)

[Estimation practice game](http://teachers.net/lessons/posts/1275.html)

[Think Metric](http://www.think-metric.com/)

[How to use a micrometer](http://www.upscale.utoronto.ca/PVB/Harrison/Micrometer/Micrometer.html)

[2016 Data Crunchers test](http://www.sciencenc.com/pdfs/resources/elementary/DataCrunchers2016Test.pdf) and [answer key](http://www.sciencenc.com/pdfs/resources/elementary/DataCrunchers2016AnswerKey.pdf)

[2012 Coaches Institute Presentation](http://www.sciencenc.com/pdfs/resources/elementary/datacrunchers/2013_Measurement.pdf) (2013 rules for similar event, Measurement Mania)

[Sample Event](http://www.sciencenc.com/pdfs/resources/elementary/datacrunchers/measurement-mania-sample-event.pdf) (Station Test from Measurement Mania 2010)