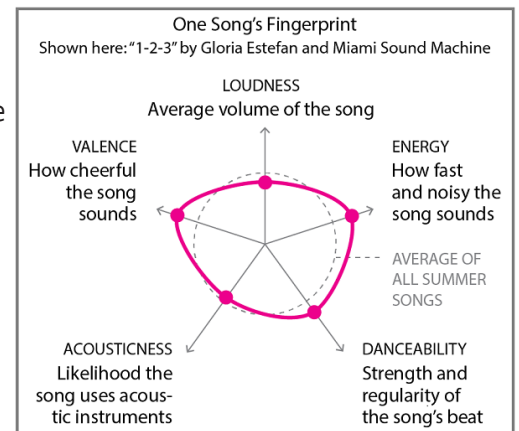# What's Going On in This Graph?
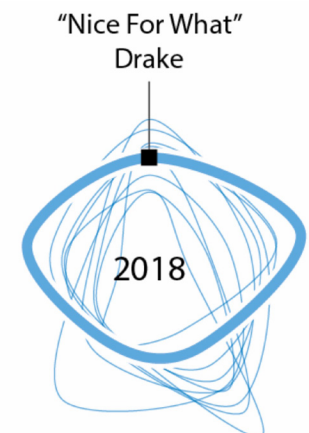# From The Learning Network The New York Times

This task was featured on the Learning Network March 11, 2019[1]. We love this data representation and think your students will too. For more information about the graph, a link to DESMOS and other resources go to https://www.nytimes.com/2019/04/04/learning/whats-going-on-in-this-graph-april-10-2019.html.

Show students One Song's Fingerprint, page 2, and discuss the characteristics and information provided in the data display.
This type of graph is called a Radar Graph and is used to display three or more quantitative variables from a common starting point. The fingerprints of the summer hits are displayed with 5 variables. Ask students, What do you notice? What do you wonder?

When students are familiar with the graph and the data it displays share the 8 years of summer hit graphs on page 3. Ask students to work in small groups and discuss the information provided. Each graph represents the top 10 hits from each summer. For example, Nice for What, by Drake, was the number 1 song of summer in 2018. This song is represented by the bold blue closed curve . The other 9 songs from the top 10 are represented by the thin blue closed curves on the graph.

Here are some discussion questions you may want to consider,

- What does the color coding represent in this graph?
- What are the similarities in representations and between representations?
- What are the differences?
- What surprises you?
- If you were coaching an artist about what song to release from an album for the next summer, what might you look for in a song to try and achieve a #1 hit?
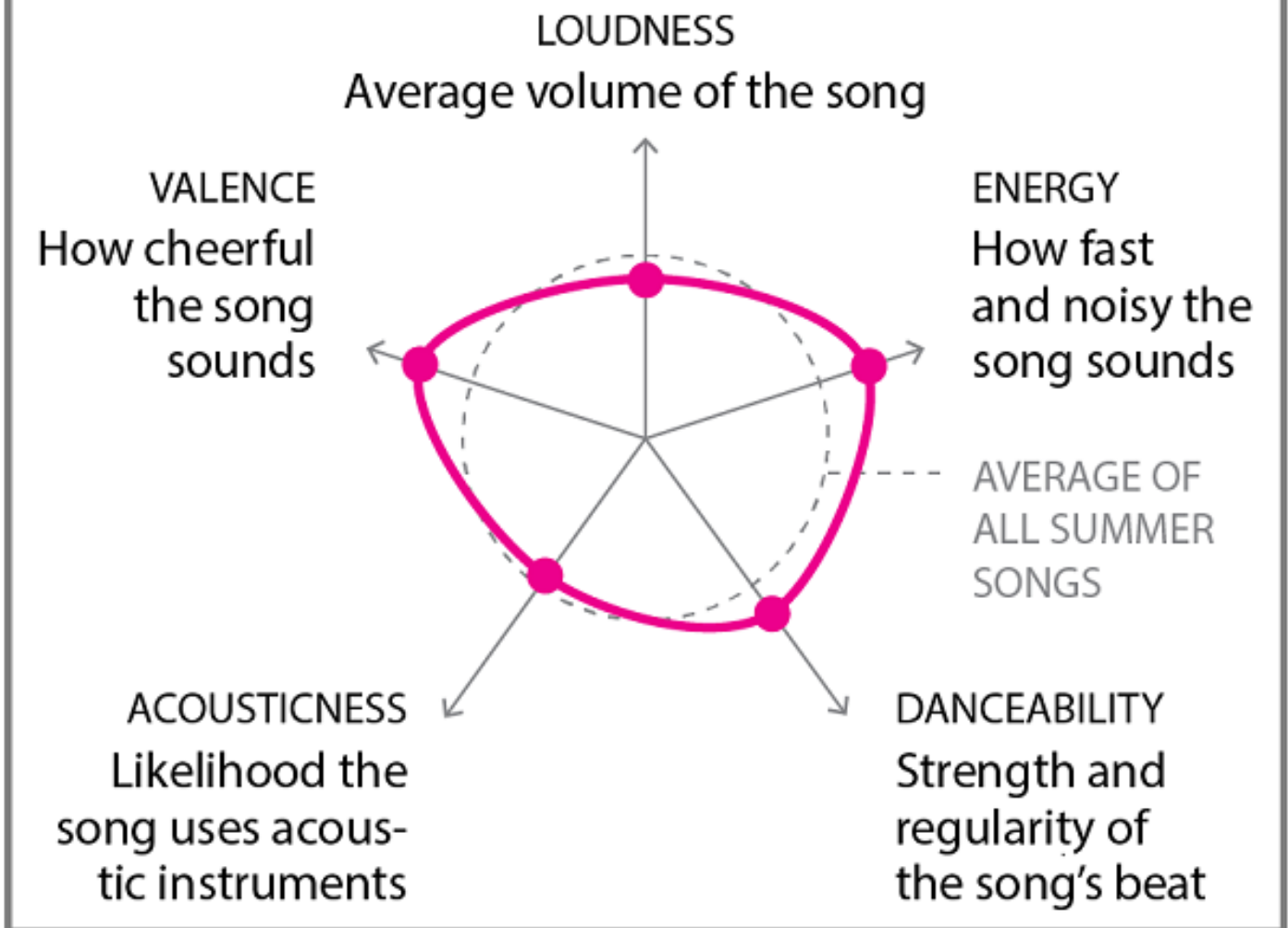

If you would like more "What's going on in this graph" examples, see

https://www.nytimes.com/column/whats-going-on-in-this-graph

One Song's Fingerprint

Shown here: "1-2-3" by Gloria Estefan and Miami Sound Machine

LOUDNESS
Average volume of the song
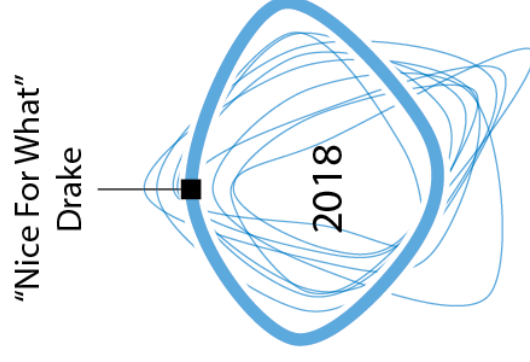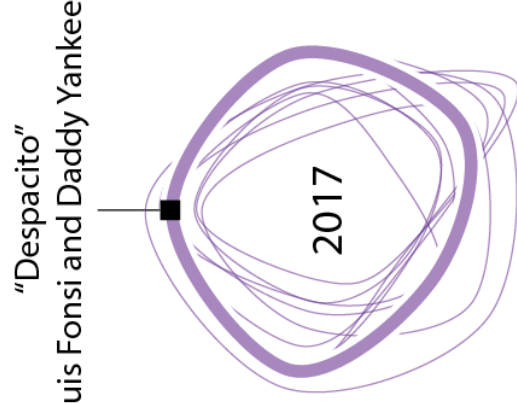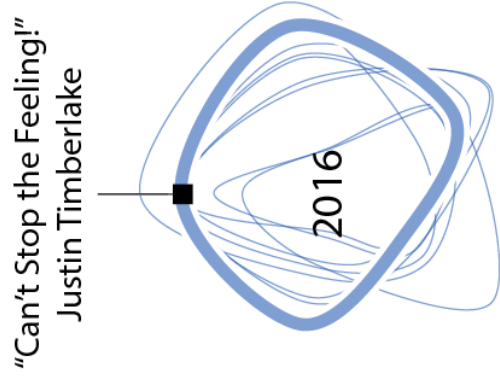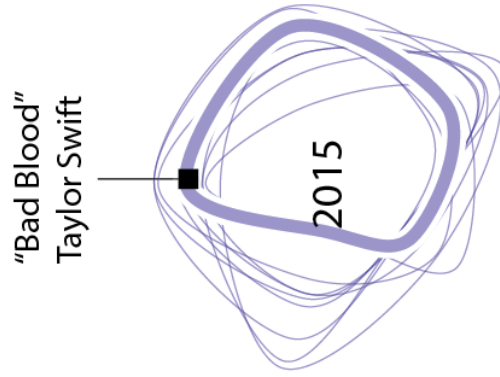
VALENCE
How cheerful the song sounds

ENERGY
How fast and noisy the song sounds

AVERAGE OF ALL SUMMER SONGS

ACOUSTICNESS
Likelihood the song uses acoustic instruments

DANCEABILITY
Strength and regularity of the song's beat

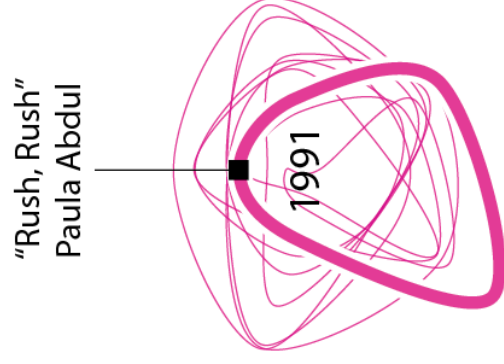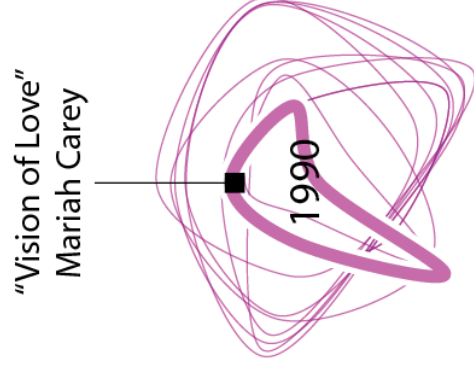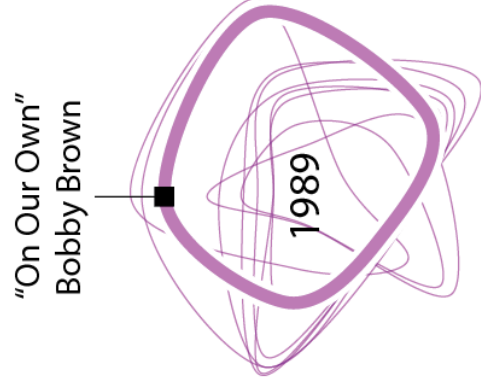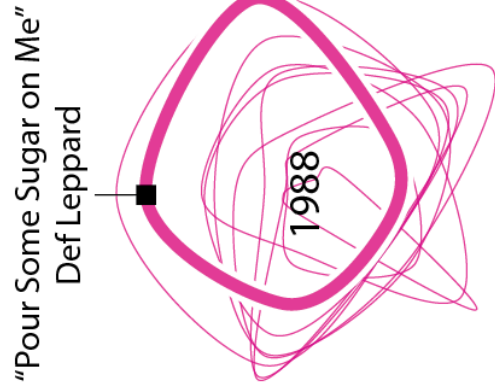https://www.nytimes.com/2019/04/04/learning/whats-going-on-in-this-graph-april-10-2019.html

Hits are different

Hits are similar

"Pour Some Sugar on Me"
Def Leppard

1988

"On Our Own"
Bobby Brown

1989

"Vision of Love"
Mariah Carey

1990

"Rush, Rush"
Paula Abdul

1991

"Bad Blood"
Taylor Swift

2015

"Can't Stop the Feeling!"
Justin Timberlake

2016

"Despacito"
Luis Fonsi and Daddy Yankee

2017

"Nice For What"
Drake

2018

Each graph represents the top 10 hit songs of the summer. The song that is labeled in each graph is the number one hit of the summer.

https://www.nytimes.com/2019/04/04/learning/whats-going-on-in-this-graph-april-10-2019.html

3