Notes for MBTA Splash class:

Introductions: name, grade

Kendall/MIT

* Q: Where is this?
* Red line stop that opened in 1912
* Fourth highest ridership among all subway stations
	+ FY19: South Station, Downtown Crossing, Harvard, Kendall/MIT
* Name changed from Kendall 🡪 Kendall/MIT 🡪 Cambridge Center/MIT 🡪 Kendall/MIT
* Contains the Kendall Band (playable instruments) by Matisse – Pythagoras, Kepler, and Galileo
	+ Matisse used to repair the instruments himself, but only after 1:30 AM
	+ People would write encouraging and not so encouraging comments on it, including “If you spent my tax $ on this, then may you DIE SLOWLY!!” and “If you spent tax dollars on this, may you live long + happily.”
	+ Only Pythagoras works right now, Drasco from the MIT Physics Department handles it
	+ Part of Arts on the Line: the rest are between Alewife and Harvard

Subway map

* Q: Why are the colors the way they are? In what order were they built?
* Green – Emerald Necklace, Orange – Orange Way (Washington Street), Blue – Boston Harbor, Red – Harvard
	+ Harvard Square website: “Harvard’s school color is crimson and its local subway line was duly named red. It is perhaps the most vibrant and lively of them all.”
	+ MBTA website: “According to the original consulting team, the branding of the Orange and Green lines was random.”
* What would become the Green line (C branch) was first constructed in 1888, and it was the first subway system in the US
	+ In rough order: Green C, Green A, Green E, Green B, Orange, Red/Blue, Green D
	+ Difficult to answer question though: colors were only officially assigned in 1965

Winnisimmet Ferry

* Founded in 1631 between Chelsea and the North End
	+ This is about five miles by walking now, trust me, I’ve done it
* Oldest ferry in the country
* Reveals the problems with commuting around Boston early on:
	+ People don’t like walking
	+ People don’t like swimming even more, probably

Horsecars on Tremont Street and Streetcars on Washington Street

* Q: What decades were these pictures taken? What did the residents find wrong about this?
* 1880s/1890s: by this point, the steam locomotive engine handles large distance travel, but early rapid transit is still handled by horsecars, but are being quickly replaced by electric cars
	+ Four large companies were merged into one: still a continuing question of monopolies in transportation service (good for standardization, expansion; bad for competition)
* Problem is traffic:
	+ People said they could walk along the roofs of the streetcars faster than to sit in traffic

Scollay Square Station

* Q: What station is this now?
* Government Center: you may have seen a sign that says Scollay Under
* This is the motivation for the subway system, which would first start along Tremont street:
	+ Cut-and-Cover technique: dig up to 50 feet down, make the tunnel, then cover over it
	+ Discovered at least 910 human remains while digging the tunnel – people thought it was cursed
	+ Many people disliked the aesthetics (mausoleum?)
	+ Gas explosion early on – the damage completely leveled a street
	+ Dirt from digging the early Green Line was used to fill in the Esplanade
* This subway system made it third in the world (after the London Underground and the Budapest Metro)

MTA

* MBTA (Massachusetts Bay Transit Authority)’s predecessor was the Metropolitan Transit Authority which existed between 1947 and 1964
* The MTA (most) of the subway lines, but remember at this point in history, there are still many independent railroads and even some subway lines that have not been centralized
* These smaller railroads lose money over time (inefficiencies) 🡪 the MBTA centralizes everything in 1964, incorporating the commuter rail as the smaller railroads and all the subways under one company

Danger Third Rail

* Q: What does this mean? What colored lines do you not see this on?
* The Third Rail provides DC current to the train through a conductor
	+ Dangerous: easily 600 V, 750 V nowadays
	+ Trains have “contact shoes” to take in electricity
	+ Lots of complicated electrical knowledge here, but I don’t know enough about that
* The Green line is overhead power and is on the street-level
	+ No need for third rail (and would be much more dangerous)

MTA song

* Q: Why was this song composed?
* Protesting potential cost increases to the subway
	+ Story of Charlie, who is trapped on the subway line due to not being able to pay an exit fare (which existed until 2006, when the Charlie card was introduced)
	+ \*With one caveat for special buses at Harvard, which were only eliminated in March 2022
	+ The song has Charlie boarding the T at Kendall/MIT!
* The Kingston trio composed this song for Walter O’Brien, the Progressive Party mayoral candidate in 1949
	+ He finished last (1.2%) despite such a great song
	+ He was fined $10 for “disturbing the peace” as he asked voters to sing the song out of loudspeakers; he could not afford radio time
* Released in 1959 as a song by itself, hit rank #15 on the Billboard Hot 100

South Station

* Q: What station is this?
* Neoclassical architecture, Ionic order columns, hand-wound clock, stone eagles
* There’s a never used lower-loop platform in south station, which should be the set of a horror movie
	+ Used to be used as a parking lot and a bowling alley
* South Station Tower is being built right next to the station
	+ The Boston Redevelopment Authority sold the *station* to the MBTA in 1877, but not its air rights, so the skyscraper can be legally built outside of the MBTA

Proposed Red Line Blue Line connector

* Q: What two lines are not connected?
* The Red Line and Blue Line are not connected, and there is a proposed connector at Charles MGH
	+ But seriously, how was this seriously going to happen
	+ Proposed budget of $800 million
* In general, construction projects are extremely expensive within cities, especially Boston
	+ The Big Dig, whose main purpose was to reroute a 1.3 mile stretch of highway, was the costliest highway project in the entirety of the US, costing nearly $21.5 billion adjusted for inflation and requiring construction between 1991-2007
	+ General question of balance between budget and speed (Will every safety check be made? Will every environmental regulation be followed? Will contracts be handed out efficiently?)

Washington Street Elevated

* Q: What line is this? And why is it elevated?
* This is the predecessor to the southern part of the Orange Line (picture is at Forest Hills) which used to be elevated
* Similar to subways, was constructed to reroute streetcar traffic from the ground in the 1900s, but it was a lot harder to dig subway stations below some of the busier streets
* All elevated stations were closed in 1987 due to difficulty of repairs and general resident dissatisfaction:
	+ Another general Boston theme: above ground railroads are more costly to maintain due to weather

Bustitution:

* Q: What does this word mean?
* Bus substituting for the normal T service
* Common with construction:
	+ Yankee line buses have been contracted with the MBTA now for shuttle buses
	+ For example, right now, between JFK/UMass and Park Street, the red line has been bustituted for track work

Bus route 57

* Q: This is bus route 57 – how does it relate to the T?
* There used to be a Green A Line that ran to Watertown, branching off from the B line at Brighton Avenue
	+ By the 1970s, it would be closed down and mostly restricted for repair services
	+ By the 1990s, most of the tracks were paved over
	+ If you go to Boston College on the Green Line, you can still see a single wire of the A line on the ground as it forks at Commonwealth/Brighton
	+ Bus route 57 follows the original A line route

SL3 at Airport station

* Q: What are your complaints about the Silver Line?
* Bus rapid transit standard (BRT) lays out guidelines for what buses should be able to do
	+ Dedicated lanes (nope)
	+ Off-vehicle fare collection (nope)
	+ Sheltered stations (nope)
	+ Transit signal priority (nope)
	+ “This is not bus rapid transit. All they did was take a diesel bus, change the engine, paint it silver and run it down the street through traffic.”
* Articulated hybrid diesel buses, opened in 2002/2004
	+ Switch from diesel to electric at Silver Line Way, because there the electric line stops
	+ “The new Silver Line is called that because it will be one of the fastest bus transit systems, and silver is a color often associated with speed (ie: silver bullet).”

Test train

* Q: What are test trains for?
* Test trains are useful for the new vehicles (see Red and Orange lines, Green line extension) but also for training new conductors and employees
* Remember that the MBTA employees 6,370 employees
* I saw a test train yesterday on the Orange line!

Phillip Eng

* Q: Who is this guy?
* General manager and CEO of the MBTA, used to be manager for the MTA Long Island Rail Road
* Currently, the T is dealing with severe safety issues and labor shortages, causing many of the delays on the lines now
	+ Slow zone expansion: you’re not the only ones!
	+ Yesterday: request for $24.5 billion in repairs
* For example: the new Green Line extension needs to be fixed already since the tracks were simply built with the wrong gauge (the track were too narrow)

Slow zone map

* Q: What do the arrows mean?
* Downward triangles: 10mph or less, Blue circles: 11-24mph, Upward triangles: 25mph or more
* The MBTA strangely does a very good job at tracking its performance metrics, despite being not-so-good at performing well
	+ To be fair, they have cleared a lot of restrictions recently (or at least this month was good!) – only 23% of the track is restricted right now
	+ At some point over the summer, it was over 40%
* Keep this map in mind when you travel around Boston!

Eastbound side of Bowdoin station:

* Q: What station is this? What direction is it going? Why is it interesting?
* The blue-line uses six-car trains now, but the eastbound station of the Bowdoin station can only fit four cars (they used to use four cars in the past)
	+ So the conductor cannot see the doors when it’s stopped because the first two cars are inside the tunnel
	+ Passengers use pushbuttons to open the doors
* This means that the first two trains are always empty at Government Center
* Wonderland refers to an amusement park that was open for a whole four (4) years, but unfortunately it was constructed in 1907 right as an economic crash occurred

Fare Transformation Project

* Q: What project is this MBTA one about? When do you think it was promised to be finished?
* Fare Transformation Project was scheduled to be finished between 2018 and 2024 to replace the reliance on the Charlie Card system, allowing for tap with any credit card, as in New York
	+ Both the MBTA and MTA contracted with Cubic
	+ NYC cost $656 million (and from my experience was quite nice!)
	+ MBTA is at $935 million estimated right now
* Several questions: what is the point of this project? (Will it ever make back the money that is being spent on it?)