

Google Docs F1 Unit ideas.

Ideas triggered from this tweet from **GeogJo** GeogJo

1. Belgium GP practice is inspiring me to include a lesson on need for/difficulty of weather prediction in sport - in new yr8 weather unit @geogJo

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I'D APPRECIATE AS PEOPLE ADD TO THE DOCUMENT IF THEY ADD THEIR NAME AT THE BOTTOM OF THE PAGE AS A REFERENCING TOOL AS GOING TO BE USING THIS IN A CPD IN A WEEK TO SHOW POWER OF USING TWITTER AND THEN G DOCS. CHEERS

2. Students work as an F1 team - decide on roles for teams @GeogJo
3. What the weather is / why / what we'd do. @victoriaellis @GeogJo
4. Students to work as a team with different roles. Feed in different facts as the practice goes on. So set timer off as in a session @JOHNSAYERS
5. Link roles together so weather team with tyre team for selection process and aerodynamic team for downforce needed. Etc. @JOHNSAYERS
6. Impact of engine temperatures with the track temperature for impact on tyres and air temperature for engine temperature, brake temperature. So look at tracks for amount of corners and changes in speed. More changes on speed = more impact on brake temperature. @JOHNSAYERS
7. Select when to send cars out on track with the weather with satellite data and % likelihood of rain and time and temperature data to get team through to qualifying 2-3

@JOHNSAYERS

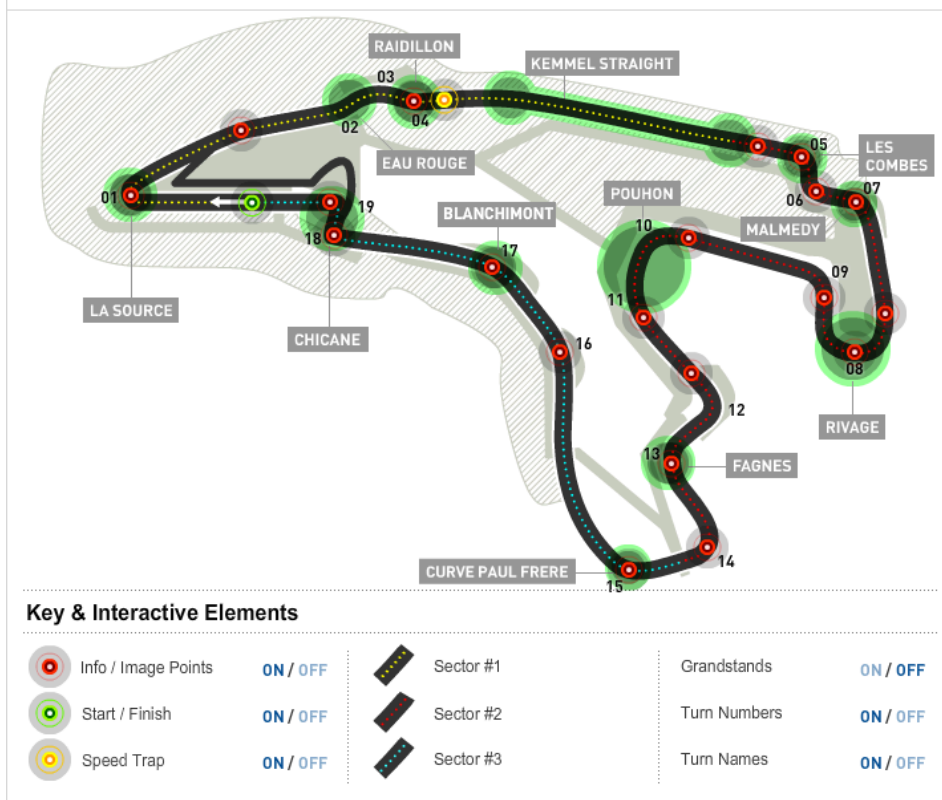
8. Link to qualifying position with sponsor bonuses for team and weather team for their decisions. @JOHNSAYERS
9. Select with weather conditions and track temperatures which tyres to use from soft, prime tyre, intermediate, wet. link to [Martin Brundle Video on tyre selection](#) and also when to make pit stop to change tyres looking at timing of the laps when [tyres go off and hit the wall](#)
10. Look at long term forecasts and judge on tyres that team have and the stock as to how many sets of tyres should be used. @JOHNSAYERS
11. Could be part of a double lesson and so conditions have changed look at wind direction, temperature, rainfall @JOHNSAYERS
12. altitude impacts. @JOHNSAYERS
13. Select which tyre to use in conditions. @JOHNSAYERS
14. Why can an F1 car go 1% faster at 1 side of the track at Spa than the other? It has nothing to do with the straight or corner speed. @JOHNSAYERS
15. Which F1 track has the fastest speed and why? @JOHNSAYERS
16. F1 sponsorship: Which country is represented the most from all the sponsorship seen on the f1 cars? @JOHNSAYERS
17. Could do parts of the world where certain parts of the car are manufactured. (Saying this one for globalisation as a company in Middlesbrough use to manufacture carbon fibre parts for some teams. @JOHNSAYERS

18. What type of companies sponsor F1 cars and drivers?
Produce a classification table of categories @JOHNSAYERS
19. Climate of the F1 tracks. Produce tables and climate graphs for them. @JOHNSAYERS
20. Is the time of year selected for the race the best time of year or not? Living graph of climate and locate to avoid heavy rainfall etc. @JOHNSAYERS
21. Locate the tracks and Map.
<http://www.mapmash.in/f1circuits.htm>
22. This site has map placemarks added and also has history of location of tracks from 2007. Which tracks have stayed? Which tracks have been axed? Why were tracks axed? Link to activity in Bahrain this year. Link to issues of siting some race tracks today. E.g. Location in Gulf of Eden risk of hijacking freighters bringing F1 equipment. @JOHNSAYERS
23. Locate where drivers come from. Drivers families do they have a link with selection process. (Bruno Senna this weekend has been apparently put into the seat due to sponsorship for team) @JOHNSAYERS - *there are 27 drivers, which is almost enough for one driver per person in the average group...*
@GeoBlogs
24. Car parks location: If in fields and the weather is bad will it mean people trapped as cars can't get out of car park as too boggy. @JOHNSAYERS
25. Have people designing their own track using Google sketch up. Design a new track. Location of facilities. @JOHNSAYERS

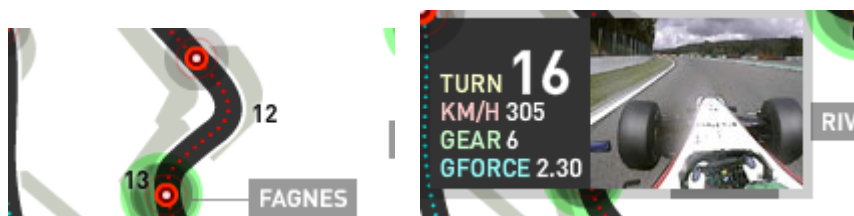
26. Transport links, Road networks for trucks access, airports, etc. @JOHNSAYERS

27. GIS track for speed and gears used around world. Which gear is used most during the year? Use interactive maps from http://www.formula1.com/races/in_detail/belgium_858/circuit_diagram.html Use this link to analyse G force at race tracks. WHICH CIRCUIT WOULD MAKE YOU MOST SICK? (GREATEST G FORCE / CHANGES OF G FORCE) @JOHNSAYERS

2011 FORMULA 1 SHELL BELGIAN GRAND PRIX



Roll over the Red points to get this effect.



28. Which track has greatest change of altitude?

29. Which track has most right hand turns?

30. Which track has most left hand turns?
31. Which Track is highest above sea level? What impacts does this have on the cars?
32. Compare different weather forecasts evaluate accuracy.
@JOHNSAYERS

<http://www.meteox.com/gmapstatic.aspx?zoom=6&type=zoom&x=267&y=253> Use Live radar Data for rainfall and get students to make predictions.

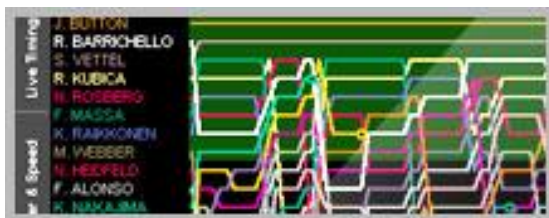
33. Follow Ian Fergusson [@fergieweather](#)
He is the BBC F1 forecaster. @JOHNSAYERS

34. **Add penalties (10 seconds for illegal activities hmmm can't think...
ha.....ha**

Green screen weather forecast from video of F1 action. - Evaluate the forecasts. @JOHNSAYERS

31. Carbon footprint of a F1 car during a race compared to an average family car ? @Geoblogs

- 32(a). Statistics: Graph driver positions per lap to highlight position changes in a timeline.



- 32(b) Graph viewing figures from around the world. Which country supports F1 most, least? Link into percentage of country's population.

32.(c) driver statistics heights, ages of drivers is there a trend? Can you statistically guess the highest likelihood of where an F1 driver will come from and what they will look like? @JOHNSAYERS

33. During lesson for progress made have a team tracker for who is completing their objective quickest or with most success.
@JOHNSAYERS



34. Basic weather forecasts for each GP

<http://www.enterf1.com/f1-weather/>

More detailed information

<http://www.netweather.tv/index.cgi?action=f1;sess=>

Could be evidence for differentiation.

<http://live.autosport.com/commentary.php/id/387>

Has link to live app of weather for races as it happens. See bottom of page. Include forecast and synoptic outlook. Has links to previous Grand Prix's this season. @JOHNSAYERS

35. If have dates of previous Grand Prix could use

Weatherspark.com to research which ones might have been

affected by wet weather. Research weather at a specific track over

the last 10 years. Plot conditions on a tally chart for rain, sunny etc.

@Geoblogs

36. Follow an F1 driver's twitter feed and from it plot onto a google earth document where they have been, or make an F1 Diary of an F1 driver's lifestyle and commitments. [Nico Rosberg](#) is good for this or [Jenson Button](#) who tweet work commitments E.g. photo shoots, holidays etc. @JOHNSAYERS

37. plenty of cross-links ideas. Do interview questions for drivers in their language, E.g. Spanish for Alonso, German for Vettel, Schumacher. @JOHNSAYERS

38. Design / technology - design an F-1 Car Make a clay model and make an air flow for areodynamics @JOHNSAYERS

39. physics for showing impacts of drag @JOHNSAYERS

40. Chemistry for showing importance of making different compounds for different conditions. link to Chemistry experiments which demonstrate this. Say for Perfume and different smelling ESTERS. (yes I remember Chemistry) @JOHNSAYERS

41. History for the sport and impact of legends of the sport like Senna.

42. Media / film - Senna film documentary making.

43. Music Using sounds from a race track what music can you create?

44. PE train like an F1 driver. Follow the training plan of a driver. Ask questions to personal trainers for the drivers like [Jenson buttons](#)

45. Physiotherapy - ask Jenson Button's [physio](#) questions for Job ideas links.

46. Works experience if you are in an area. Get school to help out for a race weekend at a circuit and get some low down on how a circuit operates.

47. How has F1 impacted current car manufacture - (Look at Quaternary industries) @shaf_hansraj(You could link these to quaternary employment in certain countries - where are the teams headquarters based - eg - McLaren) Lots in the Oxfordshire County.

48. TNCs - F1 companies HQs and manufacturing in EMDC - Road cars often made in transitional countries like eastern Europe.@shaf_hansraj Link to this week's episode of India on 4 wheels clip near the end showing production line of Korean car made in India and was to be sent to England.

49. Globalisation of F1 - Big idea F1 a sport of rich developed nations. @shaf_hansraj

50. Why did the Donnington GP circuit not go ahead and why was

Silverstone forced to update and change to become in line with the new facilities that we are seeing in Bahrain, Abu Dhabi etc
@FHESGeog

51. Newly Industrialised nations and showing the impact that circuits in these countries have a wow factor showing rapid rise in economic development. @shaf_hansraj

52. Going off on a tangent could be linked to Development in UAE area, E.g. gaining the World cup with Qatar, Qatar Foundation record sponsorship deal with Barcelona.

53. Include why some places like Abu Dhabi have invested heavily in F1. @GeogJo

54. What about the sustainability of races like these @GeogJo

55. Possible link to corruption.

56. PSHCE - link. Smoking sponsorship and how this could impact on peoples use of cigarettes. Link to them getting banned in certain regions and now the move of sponsorship away as smoking companies realised this was no longer an effective strategy. Link to teams losing money and getting economic problems and collapsing.

57. Link to Design/Technology - the changes that were made to the

sport since the deaths of Senna and Ratzenberger at Imola GP in 1994 - what were the key changes that were made? - show video clip of Kubica's crash at Montreal GP to show how safety has improved without impacting upon performance. @FHESGeog LOVE IT! Also link to Massa Accident. How could this be prevented in the future? - Students create designs possibly like enclosed cockpits (which is being considered in reports in F1 media at Spa GP 2011)

58. History/Citizenship link - look at the new Snetterton 300 circuit (Norfolk) and back to how they decided on the names of the new corners - I believe they questionnaired local people - looked for historical connections to the circuit as well. Pupils could design a circuit and come up with names from their local area - looking at Google Earth for inspiration from local place names or alternatively famous local residents? @FHESGeog (bit of a tangent!!) Love it. Get students to come up with naming hypotheses and then examine other global circuits and see if they were correct and try and see if there is themes relationships to naming of corners.

59. Group Assessment idea - take everything learnt in the unit and decide where would be the best place in the world to build an F1 circuit. need to look at weather and climate, altitude, infrastructure, revenue/earning potential (and the rest) - groups have to pitch idea to panel from FIA (sorry butted in) best ideas could be recorded and

sent to FIA/Formula one teams for feedback. @shaf_hansraj

60. Bell work leading to starter F1 top trumps idea by [@victoriaellis](#)

61. Team work focus - how many people in an F1 team. Different roles. Who is most important? Driver? Engineer? What happens if one person makes a mistake? Impact on team? @jodieworld (could include here a video clip of a failed pit stop - look at possible the one this year at Silverstone where Jenson Button's wheel wasn't connect properly - what were the consequences - think about sponsors, points lost, loss of data etc) @FHESGeog
<http://www.youtube.com/watch?v=Z4QrindAEeo> - I know it isn't in English but you get the idea!!

62. Maths challenge: Design tracks based on specific given number of corners. I.e. number of left turns must be double number of right turns and total turns must equal 24. @jodieworld

63. Maths challenge look at split times and track design and by comparing driver times work out if a driver gets close to a car in front where they are faster and likely overtaking zones.

@JOHNSAYERS

64. Colour scheme of F1 car. As part of your F1 team you have being given the role to design the colour scheme of the car and work out

where the sponsorships stickers will go on the car. Link this to amount of sponsorship Money that would be received from the different sponsors and likely income that would be received who will you select as main sponsor? Link to the fact F1 cars have colour schemes often that link to the car manufacturer or the main sponsor. Research and justification task analysis and group evaluation and decision making. @JOHNSAYERS

65. Business - A new F1 team is wanting to join the championship. But they face competition from 4 other team bids. Which will be selected? (look at example of HRT and the issues surrounding teams wanting to join) Include corruption, royal family investment, fraudulent companies, business plans, expenditure, design, facilities needed and cost up, team needed how many people will you employ, select sites for base and look at costs, infrastructure links, drivers you would select from a talent pool or experiences drivers who don't have a seat at the minute.

Have a panel or as a class weigh up the pros and cons of each team and make a committee decision on behalf of the FIA. @JOHNSAYERS

(one team when Toyota pulled out wanted to use their facilities to reduce costs but were unsuccessful)

66. Why have Toyota and Honda pulled out? (economic issues

around the world with recession, Japan and Tsunami issues. Why did Jaguar pull out? @JOHNSAYERS

67. Resource website <http://www.racetolearn.org/> mentioned on twitter by [jodieworld](#) Jodie Collins

@GeogJo @JOHNSAYERS Brilliant stuff & of great significance for me thank you! Have you used RaceToLearn in school too ? bit.ly/mtgY8a

This resource is sponsored and endorsed by Williams F1 Team.

68. ICT - Evaluate the websites of all the F1 teams. What content do they have? Compare and contrast, evaluate pros and cons of each, functionality of the sites, media used which contains most ICT techniques used? and accessibility to information and range of content. Woffling now @JOHNSAYERS

Resources

Created by @Geoblogs

Session / Phase to use	Learning Activity	Resources / Outcomes
Starter	Write down 10 words that this music makes you think of...	BBC Grand Prix theme on Spotify
Creative task	Students to design and produce content for iPhone app for F1 fans to a specification provided by the teacher Students to create as homework twitter feed for an F1 team. Every student (or groups) given roles in a team or they select the roles and tweet according to them.	Existing app: students can do better than this ! http://itunes.apple.com/app/f1-circuits/id330690022?mt=8
Which circuit ? Starter	Provide a list of clues and	

	other statements and students research the answers to gain familiarity with the tour e.g. fastest lap, highest altitude, most left/right hand turns etc. - as suggested above	
Racing Team / Pit Crew Badges	Make badges for the pit crew and other roles in the team using BigHugeLabs generator	http://bighugelabs.com/badge.php
Literacy activity	Play a short video of an F1 race and students use words to describe the sights and sounds and produce a tag cloud	Tagxedo of an F1 car? F1 symbol like the prancing horse of Ferrari or Wordle
Map-making activity	Name the corners of the race track that the race in the lesson will take place on... could name them after teachers Teacher is a leader of a country who has struck a deal to host a new F1 race. The track is not built but the FIA have given a brief for what they want the track Style to be. - Students design race track and check against brief giving justifications for their design. Track has to match briefs from other organisations. E.g. MotoGP, Superbikes, Porsche super cup, DTM. So an analysis and evaluation task as well.	Map of circuit... and spaces for names of turns / chicanes / tunnels etc. and nearby geographical features Students can use google Sketchup to include use of ICT.
Mapping activity	Produced by Matt Podbury and shared via Slideshare (for IBGeog) -	http://www.slideshare.net/Podders/grand-prix-sports-leisure-tourism-ib-geography

	worth checking spec for more stuff...	
Mapping and discussion activity This would probably run over two lessons @shaf_hansraj	Big idea: F1 is only for rich nations Starter: Have a set of cards with F1 teams, another with country of origin and a third with country GDP (to add a red herring and to spice it up have the name of circuits and the outlines.) Learners have to link all of the cards so the information is correct (have 5 sets so could be done as a group) Discussion on findings - correct errors Each group has a large world map - groups plot and annotate details onto world map - Groups need to come up with observations from the map Why are there teams "from India" based in the UK Why aren't there more teams from outside Europe. Is the big idea true Could then match the drivers with the teams - where did they originate	F1 website

	from - link to migration and globalisation.	
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Weblinks

http://en.wikipedia.org/wiki/List_of_Formula_One_circuits - Circuits plus maps

<http://www.formula1.com/default.html> - Official Formula 1 website

Sign up for this game: <http://www.formula1.com/news/headlines/2011/8/12417.html>

Monaco Grand Prix page: http://www.acm.mc/gpm/gpm_main.php?lng=en - worth making the connection with **Cars 2**, where there is a very similar race track used in the film...

REFERENCES

1. John Sayers Geography Teacher NE England [@JOHNSAYERS](#)
<http://sayersjohn.blogspot.com> <http://sayers.posterous.com>
2. Shaf Hansraj - Head of Geography , Bohunt School, SE England [@Shaf_Hansraj](#)
[@BohuntGeog](#)
<http://bohuntgeog.posterous.com/> (still in its infancy!!)
3. Jack Marsh - Head of Geography, Farnham Heath End School, SE England
[@FHESGeog](#) [@jackmarsh12](#)
4. Alan Parkinson - Chartered Geographer, Teacher, Author - Mission:Explorer - Have iPhone will travel... Currently for hire - let's talk :)
<http://livinggeography.blogspot.com>
5. [@GeogJo](#) - NQT Geography teacher in NW London