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| **Unit** | COVID-19 Unit: Lesson 9 (optional) | | | | **Driving Question** | “How can we better communicate to the public about vaccines?” | |
| **Date** |  | | **Time** |  | **Class** |  | |
| **Real life scenario (context)** | | | | | | | |
| James and Tiffany have learned a lot about vaccines in the past few weeks and want to create a poster to increase awareness about the science behind vaccinations and to address some of the misconceptions and misinformation about vaccines. What keywords should they include? | | | | | | | |
| **Learning Outcomes** | | | | | | | |
| 1. Recognize the importance of evidence-informed discussion and communication about vaccines.  2. Design a communication plan that informs the public about the COVID-19 vaccine using what has been learnt in this unit.  3. Identify trusted sources of information (e.g. CDC, WHO) to signpost others (and ourselves!) to continue research and discussions on vaccines. | | | | | | | |
| **NGSS links / NYAS STEM Education Framework (key skills and competencies developed)** | | | | | | | |
| A.1.3 Creativity  A.1.4 Communication  A.1.5 Collaboration | | | | | | | |
| **Plan of activities** | | | | | | | |
| Time | | Teacher Activity | | Learner activity | | | Resources / other info |
| *Prior to session: -* | | *Are there spare activities for those who finish early?* | | *Can this be done remotely and in person? Are there alternative approaches?*  *Differentiation?* | | | *What resources are needed to be inclusive to all students?* |
| **5 mins**  Intro and recap with a ‘do now’ task. | | Teacher introduces the LOs and introduces a ‘do now’ task with the scenario. | | Students write down (independently) as many keywords as they can recall in 1 minute. Then each student will volunteer a key word until the list is exhausted (in person or in chat box). | | | PPT |
| **10 mins**  Personal reflection on student learning | | Teacher should bring back the questions the students had from lesson 1. Ask students to write down three things they have learned. | | Students should reflect on the questions they had at the beginning of this COVID-19 unit and think about their learning. If not, students should identify where to go next for further research. | | | Students should be directed to places like the [CDC](https://www.cdc.gov/), [WHO](https://www.who.int/) for credible information about vaccines. Remind students of R.E.A.L. and the 5Ws and 1H questions from lesson 1. |
| **5 mins**  COVID-19 and vaccine misconceptions and misinformation | | Teacher should provide the wider context of the pandemic and introduce how there are common ‘myths’/misinformation that countries around the world are battling. Ask students to name some myths that they have heard too. | | Students to reflect on misconceptions and myths that they have heard. Students will choose one myth to focus on for the next activity (which can be done as a team activity or an individual activity). | | | Teachers may wish to identify sources of misinformation and other ‘myths’ for students to focus on for the subsequent activity (on the public health campaign). |
| **25 mins**  Public health campaigns | | Teachers will ask students to create their own public health campaign (in whatever medium they choose) to tackle one of the ‘myths’ that they’ve heard about COVID-19 and/or the vaccine. Teachers may wish to provide resources to get students to think about different ways to tackle the misconceptions/ myths (some resources are linked in the last column). Teachers should encourage students to apply all their knowledge and use keywords to ensure evidence-based comms. | | Students can work on their own (or in teams – dependent on teacher preference) to create some form of public communication in relation to tackling one of the COVID-19/vaccine ‘myths’. Students should focus on creating evidence-based outputs (whatever the medium) and think about the intended audience.  Before students start, they may wish to do some independent research as to the resources (articles, videos, PDFs, leaflets, posters) currently out there that tackle misconceptions. Students can get a sense of the power of infographics and reflect on effective ways of communicating science to others. The resources don’t have to be from the US. | | | Teacher may chose to get students to work independently (as a way of assessing learnings that each student took from this whole unit) or in teams (to encourage and focus on collaboration skills).  Some resources to get students thinking about how to tackle COVID-19 ‘myths’: from the [CDC](https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html), from [King’s College London](https://www.kcl.ac.uk/blog-the-ten-most-dangerous-coronavirus-myths-debunked-1), from [British Society of Immunology](https://www.immunology.org/sites/default/files/BSI_Guide_Childhood_Vaccinations_FINAL_2020.pdf).  <https://www.immunology.org/sites/default/files/BSI_Guide_Childhood_Vaccinations_FINAL_2020.pdf> |
| **10 mins**  Gallery walk  (optional) | | Teacher may choose to allow students to continue to work on their public health campaigns and have a time-limited activity. Either way, teacher could use a ‘gallery walk’ to encourage students to think about the criteria applied when judging any form of public science communication. | | Students can use this as an opportunity for peer-assessment either at the end of a time-limited activity or as an ‘interim’ feedback on their ideas for the campaign (this will be dependent on the teacher’s instructions and time constraints). Students should treat this public health campaign as their ‘final product’ from this COVID-19 unit which brings together and showcases (some of) their learning in this unit. | | | Teachers may also choose to allow students to finish off their public health campaigns as homework (so they can do additional research) – in which case, the gallery walk will be an ‘interim’ peer assessment. |
| **5 mins**  Wrap up of COVID-19 Unit. | | Wrap-up of learning, go over this lesson’s LOs and gather feedback on how the unit went *(please pass on this feedback to NYAS)*. | | Students to reflect on their learnings from the overall unit and also on the research/discussions they want to continue to have especially during the ongoing COVID-19 vaccine rollout. | | | Teachers should encourage students to retain a critical and inquisitive mind as there will no doubt be more questions as we continue to get on top of the pandemic. |
| **Total time = 60 mins** | |  | |  | | |  |
| **Preparation for next lesson (teacher self-reflection) Gather student feedback to**  **incorporate into your next session** | | | | | | | |
| Which aspects of the lesson went well?  Which aspects could be improved upon?  What misunderstandings still need to be cleared up?  Actions for the future: | | | | | | | |