



(read aloud in your groups, or use text to speech)

Dear New Tech Science Historians,

October is [Global Diversity Awareness Month](#), amongst many other campaigns! At the American Chemical Society, we strive to inform, promote, and educate the public about everything chemistry. Our mission is “to advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people.”

We are trying to appeal to state education agencies to include a more diverse cross section of scientists related to chemistry (or pre-chemistry like alchemy) in their curriculum, as there have been many “hidden figures” who are not included in [traditional curriculum](#) (see to the right). As *Understanding Science* states, “at some points in history, science has largely been the domain of able-bodied, [neurotypical] white males, but that is simply no longer true.” Our current world is made up of a diverse group of people from different cultures, races, religions, ages, physical abilities, neuro abilities, and orientations who participate in scientific research and October is the perfect time to celebrate these individuals.

Since you all are science historians (look [here](#) for what a science historian does), you are/will be qualified to provide insight on diverse figures in the development, impact, or evolution of the atomic theory, from ancient cultures and alchemists to the modern understanding of the atom. From a recent survey, the public generally thinks a scientific discovery is influential and impactful if it revolutionizes our way of life, builds on previous discoveries/understandings in an improved way, and has evidence to support its claim. Sometimes these discoveries are accepted quickly by the public and sometimes it takes many years.

As a visual that we will include in our appeal to the Texas Education Agency, each group of historians will submit for entry two scientists **influential in the development of atomic theory** and their accompanying pieces (to be discussed later on) to the school's Diversity in Atomic Theory Development timeline. One scientist/chemist that is traditionally included in the curriculum from your facilitator's list and one of your choosing from the identity group(s) of your choice - culture, race, religion, age, physical ability, neuro ability, orientation, etc.

For scientists with multiple entries, we will have a voting period to determine whose was most convincing and should be included on the school timeline.

More information to come later about the accompanying pieces and deadlines.

Looking forward to your school's submissions,
American Chemical Society

- (3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:
- (A) analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, so as to encourage critical thinking by the student;
 - (B) communicate and apply scientific information extracted from various sources such as current events, published journal articles, and marketing materials;
 - (C) draw inferences based on data related to promotional materials for products and services;
 - (D) evaluate the impact of research on scientific thought, society, and the environment;
 - (E) describe the connection between chemistry and future careers; and
 - (F) describe the history of chemistry and contributions of scientists.

0021 Update

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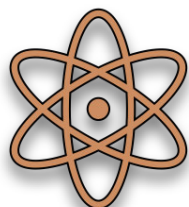
- (5) Science concepts. The student understands the historical development of the Periodic Table and can apply its predictive power. The student is expected to:
- (A) explain the use of chemical and physical properties in the historical development of the Periodic Table;
 - (B) identify and explain the properties of chemical families, including alkali metals, alkaline earth metals, halogens, noble gases, and transition metals, using the Periodic Table; and
 - (C) interpret periodic trends, including atomic radius, electronegativity, and ionization energy, using the Periodic Table.
- (6) Science concepts. The student knows and understands the historical development of atomic theory. The student is expected to:
- (A) describe the experimental design and conclusions used in the development of modern atomic theory, including Dalton's Postulates, Thomson's discovery of electron properties, Rutherford's nuclear atom, and Bohr's nuclear atom;

Driving Question: What makes a scientist influential in the development of atomic theory?

Problem Statement: We are science historians who will convince the Texas Education Agency that our scientists are influential in the development of atomic theory so that the curriculum includes a more diverse cross-section of scientists.

NTKs - [2nd period](#), [3rd period](#), [4th period](#), [5th period](#), [6th period](#), [8th period](#)

[Rubrics](#)



Update #1 10/20/21



Update your social contract with the roles that you choose from below:

One group member will be the WRITTEN role and complete individual written components

One group member will be the ARTISTIC role and complete individual artistic components

One group member will be the VIDEO/AUDIO role and complete individual video/audio components

We have some more guidelines that the ACS board would like each school to follow so the timelines that we send in follow the same format nationally.

Benchmark #1 - chosen scientist preferences in Echo

More information about choices for your diverse scientist to come later. For now, focus on your chosen scientist.

Benchmark #2 - [planning document](#)

For each scientist that your group submits to the school timeline (remember your group will have 2 scientists), you should include the following information in a Genially:

- A written component (individual, 1 learner)
- An artistic component (individual, 1 learner)
- A video/audio component (individual, 1 learner)
- Group Genially
- All information should be through the lens of contributions to atomic theory
- For your diverse scientist, also describe their identity group and if there were any challenges they faced in their career work.



For your final product, you should submit (list to be updated):

- Group - A physical print out of your summary template with QR code & necessary pieces (template to be provided later)
- Group - Bulb shareable link with your Genially & group reflection (more information to be provided later)

A rubric will be provided later.

HERE IS THE [RUBRIC](#)