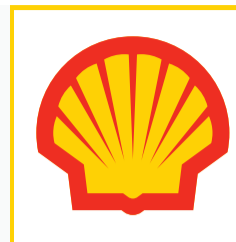


TEACHER GUIDE

HYDROCARBON HUNT GAME



BACKGROUND

Every home is full of objects made from organic compounds known as hydrocarbons. In fact, it would be difficult for many of us to go through the day without using a product that has some hydrocarbons in it. Hydrocarbons, or chains of hydrogen and carbon molecules that create many of our chemicals and synthetic materials are often derived from oil and natural gas. This activity asks students to utilize the VR viewers they built in the previous activity to explore “the everyday home,” and become experts at identifying products made from hydrocarbons. The VR game hydrocarbon hunt will allow them to walk through the virtual reality home, focus on an item, and learn more about how it is made. Students will need assembled viewers and access to the game to play at their own pace.

OBJECTIVES

- Students will be able to define the term hydrocarbon as chains of hydrogen and carbon molecules used to create chemicals and synthetic materials in everyday products.
- Students will be able to explain that hydrocarbons make up petroleum and natural gas, and these products are common sources for many of our chemical and synthetic products.

MATERIALS

- Assembled VR viewer
- Hydrocarbon Hunt App

PREPARATION AND PROCEDURE

TIME: 20 - 30 MINUTES

- Download and sample the game ahead of sharing it with students.
- Ask students what they think “hydrocarbon” means. For students with chemistry background, steer the discussion to the chemistry related to hydrocarbons. For students with no prior background, ask them to break the term apart as a hint. Ask students to make a list of things they think or know to be made of hydrocarbons.
- Allow students to play the game.
- After students have played the game, review the term hydrocarbon. Ask students to construct a list of things they observed in the bedroom, bathroom, living room, kitchen, or garage that were made of hydrocarbons. Can they add items to that list that were not featured in the game?
- Ask students to consider what their day would look like without any of these items. Could these items be made or used without hydrocarbons? Discuss what could be some of the advantages and disadvantages of using the product made without hydrocarbons.