

Teacher Page: Science Focus- The Quest to Make Hydrogen Workable (p. 337)

Unit: Unit 7

Grade Level Indicator:

Description:

Time: 25 minutes

Materials: Book page 337

Procedure:

Warm-up:

Instructional Strategies:

Assessment: Grade question, student participation

Variations: Do questions orally with teacher led instruction,

Interdisciplinary Connection:

Sample Data/ Answers: The answer key follows the student page.

Name _____ Date _____ Period _____

Science Focus- The Quest to Make Hydrogen Workable (p. 337)

1. What do scientists want to use as fuel ? _____

2. What are the most likely production methods? _____

3. What ways can H₂ be stored? _____

4. How can H₂ be safer than gasoline, diesel fuel, natural gas, and concentrated ethanol? _____

5. What would Jerry Woodall's idea allow to happen? _____

Critical Thinking: Do you think that governments should subsidize research and development of these and other technologies in order to make H₂ a workable fuel? _____

1. H₂, Hydrogen Gas
2. Use electricity generated by solar cells power plants and wind farms, and geothermal energy
3. In a pressurized tank of H₂, solid metal hydride compounds in sodium bicarbonate, absorbing it into the surfaces of activated charcoal or carbon Nanofilters, nanosized glass microspheres, ultracapacitors.
4. It will not explode or burn if a vehicles fuel tank or system is ruptured in an accident.
5. H₂ could be generated as needed inside a tank about the same size as an average car's gasoline tank.

Critical Thinking: Answers will vary