

## Bill Nye: Atoms KEY

1. Atoms are too small to be seen by a what? **Conventional or regular microscope**
2. What two particles make up the nuclei of an atom? **protons & neutrons**
3. Relative to human size, how far from the nucleus is the closest electron? **500 meters**
4. Atoms are mostly **empty space**.
5. How many atoms could fit on the head of a pin? **1 million**
6. Water can be decomposed with electricity to form:  
A) Water gas                      B) **Hydrogen and oxygen -----correct---**  
C) Hydrogen and carbon        D) Carbon and oxygen
7. What makes one atom different from another? **number of protons & neutrons**
8. How many naturally occurring elements are there? **92**
9. What is a linear accelerator used for? **Separate neutrons from nuclei – speeding up atom movement - used for delivering external beam treatments to some cancer patients**
10. Where are quarks located? **Inside protons & neutrons (nucleus)**

### True or False?

11. Atoms are mostly space. **True**
12. The subatomic particles in an atom do not move. **False**
13. The nucleus occupies most of the space of an atom. **False**
14. There is space between molecules in a mixture. **True**
15. Each element has a specific number of protons in the nucleus. **True**
16. Everything is either matter or energy. **True**