

UPGRADE to the Bundle

Crash Course - PHYSICS 46 Episode Series Bundle

- ✓ Classroom Ready - Just Print and Go!
- ✓ Active Engagement - Keep Students' Attention
- ✓ Direct Video Link Included

WATCH VIDEO



ALL 46 Episodes with Answer
Keys and Direct Video Link

CLICK HERE



Crash Course Physics #21: Kinetic Theory and Phase Changes

Name: _____ Date: _____

You can access the video here → <https://youtu.be/WOEvcvJfbc240?si=H-YuXgVceui3EOYm>

1. The _____ theory of gases explains how gas molecules move and interact.
2. Ideal gas molecules are assumed to have perfectly _____ collisions.
3. The average kinetic energy of a gas is proportional to its _____.
4. The constant k used in gas equations is equal to R divided by _____ number.
5. The speed calculated from the average squared velocity is called the _____ speed.
6. The _____ of speeds shows that most gas molecules have speeds close to the root mean square speed, but not all are the same.
7. Real gases deviate from ideal behavior at very high _____ or very low temperatures.
8. The process where a gas becomes a liquid due to molecular attraction is called _____.
9. The maximum temperature at which a substance can exist as a liquid is called the _____ temperature.
10. The _____ point is the temperature and pressure at which a substance can exist in all three phases: solid, liquid, and gas.
11. Below the triple point, a substance cannot exist as a _____.
12. The phase change from solid directly to gas is called _____.
13. The triple point of water is used to define the _____ temperature scale.
14. Man's reference altitude is based on the pressure at the _____ point of water.
15. The critical temperature of water is about _____ Kelvin.

Crash Course Physics #21: Kinetic Theory and Phase Changes KEY

1. The **kinetic** theory of gases explains how gas molecules move and interact.
2. Ideal gas molecules are assumed to have perfectly **elastic** collisions.
3. The average kinetic energy of a gas is proportional to its **temperature**.
4. The constant k used in gas equations is equal to R divided by **Avogadro's** number.
5. The speed calculated from the average squared velocity is called the **root mean square** speed.
6. The **distribution** of speeds shows that most gas molecules have speeds close to the root mean square speed, but not all are the same.
7. Real gases deviate from ideal behavior at very high **pressure** or very low temperatures.
8. The process where a gas becomes a liquid due to molecular attraction is called **condensation**.
9. The maximum temperature at which a substance can exist as a liquid is called the **critical** temperature.
10. The **triple** point is the temperature and pressure at which a substance can exist in all three phases: solid, liquid, and gas.
11. Below the triple point, a substance cannot exist as a **liquid**.
12. The phase change from solid directly to gas is called **sublimation**.
13. The triple point of water is used to define the **Kelvin** temperature scale.
14. Man's reference altitude is based on the pressure at the **triple** point of water.
15. The critical temperature of water is about **647** Kelvin.

15 Questions

Answer Key Included

Save 85% per worksheet!