

P1 Topic 5 Big Bang – Fact Sheet

Sound	
1. Sound from an object moving towards you	<ul style="list-style-type: none"> • Has a higher frequency (pitch) • Has a shorter wavelength
2. Sound from an object moving away	<ul style="list-style-type: none"> • Has a lower frequency (pitch) • Has a longer wavelength
3. The effect of pitch changing as an ambulance moves towards you is called	the Doppler effect
4. Doppler effect applies to this type of wave	sound
Light from Galaxies	
5. When observing light from most distant galaxies	We see an increase in the wavelength of the light
6. The effect of light moving to an increased wavelength due is called	Red Shift
7. The red shift is bigger when	Galaxies are further away
8. The further away a galaxy is,	the faster it is moving away from us
9. In theory, if the Universe is expanding it <u>must</u> have started from	a single point
10. This theory is called	The Big Bang theory
CMBR	
11. CMBR stands for	Cosmic Microwave Background Radiation
12. Where is CMBR found?	It fills the universe
13. What is CMBR?	Long wavelength (microwave) electromagnetic radiation
14. Where did CMBR come from?	From radiation that was present soon after the Universe began, which cooled as the Universe expanded
15. As space expands, what happens to the CMBR	It expands as well
16. What is the only theory which can explain CMBR?	The Big Bang theory