**Year 8 – Term 3 Revision Questions**

Waves

1. What are waves caused by? Give an example.
2. What do waves transfer?
3. What is the difference between a longitudinal wave and a transverse wave?
4. How do you measure the amplitude, wavelength, and the frequency of a wave?
5. How do you calculate wave speed?

Light

1. What kind of wave is light? (HINT: there are two different answers)
2. What three things happen to light when light hits an object?
3. How do we see luminous objects? How do we see non-luminous objects? Draw ray diagrams for both cases.
4. How are shadows formed?
5. Draw a ray diagram for reflection including a) the normal, b) angle of incidence, and c) angle of reflection.
6. What are the rules for reflection?
7. Why do smooth surfaces reflect an image but rough surfaces do not?
8. What is refraction? Draw a ray diagram for refraction of light as it enters and exits a glass block (HINT: the light refracts twice, once when going in, once when exiting).
9. Why is it that objects in water appear to be in a different location then they actually are? Draw a ray diagram to show this.
10. What is a spectrum? How can we get a spectrum using white light?
11. Why do we see different objects as different colours?
12. How do coloured filters work? What colour do objects appear under a red filter for a) a white object, b) a red object, c) a green object? Why?

Sound

1. What type of wave is sound? What causes sound waves? How do sound waves travel?
2. What are the differences between light waves and sound waves?
3. How does the speed of sound change in different mediums (solid, liquid, gas).
4. How does a change in the a) amplitude, b) wavelength, and c) frequency affect the sound you hear?
5. Draw the sound wave for a high pitched, quiet sound.
6. What are the five main parts of the ear and what are their functions?
7. How can the parts of the ear become damaged? How can you solve these problems?
8. What is the human hearing range?
9. How is loudness measured?

Rocks

1. What are the three main types of rocks? What are the features of each type?
2. Compare the strength of the different types of rock. Use their structure to explain why.
3. What does porous mean? Draw a diagram of a rock that is porous.
4. How is each type of rock formed? Draw a diagram of the rock cycle.
5. What is weathering? What are the two main types of weathering? How do they work.
6. Describe freeze-thaw weathering, onion skin weathering, chemical weathering, and biological weathering.
7. What is a fossil? Which type of rock can fossils be found in?
8. What is a crystal? What does it mean if the crystals are interlocking?
9. How do igneous rocks with different sized crystals form?