**What you need to know for the Waves, Light, EM spectrum, and Ray Model Test:**

**Wave Model:**

1. What are the two types of waves we learned about? How are they similar. How are they different?
2. Be able to draw a diagram of a wave and label the **crest, trough, wavelength** and **amplitude**.
3. Explain the relationship between **wavelength** and the **frequenc**y of waves. (Use proper sentences.)
4. How do you calculate the frequency? What are the units for frequency?
5. What is the order of colours that compose white light? Which has the shortest and which has the longest wavelength? Which ones will refract the most?
6. Explain how we see the different colours of objects.
7. List the parts of the **electromagnetic spectrum** in order from low frequency to high frequency.
8. Think of five examples from the electromagnetic spectrum that affects your life. Describe the situations or devices that you use them.

Ray Model:

1. Explain the difference between opaque, transparent and translucent materials and give an example of each.
2. How do shadows support the ray model of light?
3. Explain the difference between **refraction** and **reflection**
4. When does refract occur? Why does refraction occur? Which way does the light bend when moving from one material to the next?
5. Be able to apply the Law of Reflection.
6. Be able to measure the angle of reflection using a protractor.