**S3 Science: how well is your learning progressing?**

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| **Key area 1: How do we explore the Universe?** | **I can do this.** | **I need to go over this.** | **I don’t know this.** | **Level** |
| I can state the conditions required to support life |  |  |  | **3** |
| I can use an equation to solve problems involving distance, speed and time (d = v t) |  |  |  | **4** |
| I can state that light travels at a speed of 300,000,000 ms-1. |  |  |  | **3** |
| I know the distance light travels in one year is called a light year. |  |  |  | **3** |
| I know that stars are formed when gravity pulls gas particles together and causes Hydrogen to fuse into Helium. |  |  |  | **4** |
| I know that each colour of light has a different wavelength from the other colours. ROY G BIV |  |  |  | **3** |
| I can identify the elements present in a star by observing the colours of light it emits. This is called line spectra. |  |  |  | **4** |
| I know that an exoplanet is a planet which is not in our solar system. |  |  |  | **3** |
| I know that telescopes are different sizes as they are used to detect different types of Electromagnetic waves. |  |  |  | **4** |
| I know that when light reflects from a straight mirror the angle of reflection is equal to the angle of incidence. |  |  |  | **3** |
| I know that a curved reflector is used to reflect more waves to a focus point to make the signal stronger. |  |  |  | **3** |
| I know that a convex lens is used to converge the rays of light to a focus point. |  |  |  | **3** |
| I know that a concave lens is used to diverge the rays of light. |  |  |  | **3** |
| I know how to complete diagrams to show refraction of light and can label the; normal, angle of incidence and angle of refraction. |  |  |  | **4** |
| I know that refraction in when light changes speed when it passes from one material to another. |  |  |  | **4** |