# Ytterbian isotopes

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rsc.li/2qcDGH3

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## Foundation level activity (teacher answers)

Read the article ‘The most important village in chemistry’ (rsc.li/2qcDGH3). It mentions a number of elements that are associated with the town of Ytterby. Use the information in the table to work out the elements the data describes and the chemical symbols. Complete all the gaps in the table. The missing information is given in **bold**.

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| --- | --- | --- | --- |
| Element | Number of protons | Number of neutrons | Symbol |
| **Yttrium** | 39 | 49 | $$$$ |
| **Erbium** | 68 | 94 | $$$$ |
| **Gadolinium** | 64 | 92 | $$$$ |
| **Dysprosium** | 66 | 96 | $$$$ |
| **Ytterbium** | 70 | 98 | $$$$ |
| **Scandium** | **21** | 24 | $$$$ |
| **Thulium** | 69 | 100 | $$$$ |
| **Holmium** | 67 | 98 | $$$$ |
| Dysprosium | **66** | 90 | $$$$ |
| **Lutetium** | 71 | 104 | $$$$ |
| Gadolinium | **64** | **90** | $$$$ |
| Ytterbium | **70** | *106* | $$$$ |
| Terbium | 65 | ***94*** | $$$$ |
| Erbium | **68** | **99** | $$$$ |