**Exploring** Financial Sustainability through Mathematics and Statistics

Designing a tiny house

**Learn how to plan and design a tiny house**

About this resource

This resource supports learners to plan and design a tiny house.

View the Level 4 and 5 achievement objectives related to this learning experience [here.](https://sortedinschools.org.nz/api/v1.0/download?files=315)

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# SOLO taxonomy

The learning experiences in this resource are aligned to SOLO Taxonomy to ensure cohesiveness, constructive alignment and cognitive stretch for all learners. This gives you choices throughout the learning process.

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|  **Need it/Know it** | A picture containing text  Description automatically generated **Think It/Link it**  | A picture containing icon  Description automatically generated **Extend it/Defend it**  |
| Make connections to what you aready know. This is the starting point for new learning. | Link your ideas and make connections to build new knowledge and understandings. Learn about the perspective and insights of others. | Extend your learning by applying it to new contexts. Find evidence, validate sources, summarise your thinking and present your findings to clarify.  |

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Retirement

 Learning experiences

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|  **Need it/Know it**  |  **Think it/Link it**  |  **Extend it/Defend it**  |
| Think about your house/whare and the spaces that are in it. **List** the areas that are most important to you. **Describe** the spaces that you spend the most time in each day.**Define** [tiny house/whare](https://www.nzgeo.com/stories/tiny-houses/). **Identify** the floor area of most tiny houses/whare. Read [Build Tiny NZ](https://www.buildtiny.co.nz/) for more information.**List** common features of houses/whare, for example, living spaces and appliances. **Investigate** what the building rules are for tiny houses/whare, for example, whether you can build one on any piece of land. | **Compare and contrast** the way space is used in a tiny home with the way it is used in a larger home. [Interview](http://sortedinschools.org.nz/sorted-resources/financial-sustainability/questions-for-interview-with-a-grandparent-or-retiree/) a grandparent or retired person about what it is like to be retired. Ask questions about how and where they live (living arrangements) have changed. Record your interview.**Make connections** between the needs of a retired person and your [tiny house/whare activity](http://sortedinschools.org.nz/api/v1.0/download?filename=building-a-tiny-house&files=280).**Calculate** the surface area of the geometric shapes used in your tiny house/whare floor plan.**Calculate** the volume of the geometric shapes used in your tiny house/whare floor plan. Explain the features of your tiny house/whare. Use mathematical equations and symbols to explain your thinking. | **Create** a draft plan of a tiny house/whare. Include a floor plan that identifies key features. **Create** a final plan of a tiny house/whare. Include a floor plan layout that meets necessary specifications. Include your calculations of surface area and volume.Use the [activity brief](http://sortedinschools.org.nz/api/v1.0/download?filename=building-a-tiny-house&files=280) to **evaluate** your final tiny house/whare plan. Justify its layout and include any calculations you have made. Get feedback from the grandparent or retired person you interviewed and include this in your evaluation.  |



**Tip: Pick different learning experiences from each column to build a framework of lessons that differentiates your classroom**