**Task Sheet for Production & Design Manager**

**LI: To identify the steps in baking the Gingerbread Horses, create decorating designs and identify ingredients required.**

1. Watch this clip about how to make the Gingerbread Horses: <https://www.youtube.com/watch?v=K5MhqIdSIVM>
2. Watch these clips on how you can decorate the Gingerbread Horses: <http://www.gingerbreadhorse.co.nz/video_decorating.htm>
3. Investigate other ways you can decorate the Gingerbread Horse biscuits. You can find some inspiration by looking at the 2013 entries for ‘Best Decorated Biscuit’ – see: <https://www.flickr.com/photos/nzrda/sets/72157644618444459/>
4. Sketch your ideas about how your team could decorate the biscuits into your book and label them with the ingredients you would need. (Don’t forget about what you would need to make any icing you might need!). Label your ideas with ranking of your most preferred design through to your least preferred.
5. Discuss with your teacher what the criteria will be for the number of designs you are able to make. Share your ideas with the Production and Design Managers from other teams to see what decorating ingredients you have in common. Highlight these on your plans.
6. Apply the SCAMPER thinking tool to your top 3 ideas for decorating. Ask yourself these questions to see if your designs could be developed further.

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| **S** | **Substitute** | Can you substitute an ingredient? |
| **C** | **Combine** | Can you combine any ideas from your different designs? |
| **A** | **Adapt** | Can you adapt any of your ingredients to fit in with ingredients that another group needs? |
| **M** | **Modify** | Can you change the colours? Could extra parts be added to your design? Does anything need to be made smaller? |
| **P** | **Put to another use** | Can you put any ingredients to another use in your design? |
| **E** | **Eliminate** | Are there any parts that are not required and could be left out all together? |
| **R** | **Reverse** | Can parts of your design be interchanged to add variety? Could you investigate reversing the positive and negative spaces in your design? |

1. Discuss other Production and Design Managers how making changes might develop the design of your Gingerbread Horses and/or make the production of them more achievable. Make any changes needed to your design sketches and labelling to the decoration ingredients.
2. Share your design ideas with your group and decide which design/s you will go with. Fill out the Decorating Ingredients List and submit it to your teacher.
3. Many products that are produced in large numbers are made using an assembly line. The first and best known example of this is the Model T Ford. Watch this youtube clip <https://www.youtube.com/watch?v=S4KrIMZpwCY>

* Explain to a partner how a car is assembled by the assembly line process.
* Can you think of other products that are made by the assembly line process?
* Identify two advantages to using the assembly line process.

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* Could you apply this to decorating your Gingerbread Horse biscuits? What would the pros and cons be of doing this?

**Decorating Ingredients List**

Sketch and label your final design/s here:

List all of the ingredients you will need for the decorating part of the process. (Don’t forget about what you’ll need to make any icing!)

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