Home Learning TV: Junior Project

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| **Segment lesson planning details** |  |
| Title for segment: | Starch |
| Year levels *(e.g. Yrs1 – 3)*: | Yrs 1-6. Science / English / Technology |
| NZC learning areas:  | Choose an item. |
| Purpose of lesson:(What learners will learn) | Students will learn to:* understand that starch has many uses in cooking and science and **belongs** to a variety of root crops
* appreciate how celebrating kai contributes to a sense of **belonging**
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| Success Criteria – students will be able to:(how they will know when they have learnt it) | * identify that starch is found in many food sources
* describe why starch is a sugar
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| **Segment content/context details *(as appropriate)*** |
| Māori specific content i.e. the learning draws on Mātauranga Māori: | Kumara used and grown in NZ contains starch.Clip showing Kumara grown in NZ. | Pacific specific content i.e. the learning is focused on Pacific knowledge: | Taro and Yam for starch sources in Pacific Islands. Clip showing a Taro farm in Hawaii |
| **Segment links and attachments** |
| Links to recordings /resources | Taro You Tube clip [https://www.shechangeseverythi44g.com/blog/what-is-taro-root](https://www.shechangeseverything.com/blog/what-is-taro-root) Kumara You Tube clip <https://www.youtube.com/watch?v=ZWx3PYXg2z4#action=share>  |
| Attachments  |  |
| **Segment plan content** |
|  | Teaching and learning activities linked to purpose | High level script (key points/questions)  |
| **Activate**: Activating prior learning, knowledge of contexts and relationships | *What do we remember about the ingredients for making bread?**Do we know why starch was used?**What crops do we grow that contain starch?**Refer to Prior Learning and sessions**Recognition that different NZ cultures might have different raw food ingredients**Visualisation* | *Welcome back to Junior Project – it’s lovely to see you all again.**Greetings in te reo Māori and at least one Pacific language (Monique to keep track of this) Aloha (link to Hawii clip about taro growing)**In our last few programmes, we looked at bread from around the world, talked about sharing Kai and made some delicious Rēwana bread. We also looked at how we are connected and* ***belong*** *to our land.**Today we are going to think about some of our favourite kai in NZ – presenter has a range of veg on table:*Kumara, taro, potato, maize, wheat, rice, peas and barley.What do you recognise here?Presenter talks about what is in front of her. |
| **Learn**: Introducing learningReinforce routines, provide multiple exposure to concepts, and strategies. Scaffolding learning  | *Refer to Prior Learning and sessions**Encourage- think/pair/share**Connect to theme of belonging**Transparency in learning intentions* | Can you remember what we used to make Rēwana bread? Can you remember all the key ingredients? Did you ask someone at home what they know about baking bread?I wonder what you found out?At first, I thought it was unusual to see potato added to bread. Do you remember that it was the starch in the potato that was important in the baking process? Another way to think about starch is as sugar.Yes, sugar!Just like a sugary drink or too many lollies can give us too much energy, the starch (sugar) gives the yeast energy (food) to activate its ability to ‘rise’ making the bread soft and fluffy.What do you think about that?It’s amazing how much science is involved in cooking. Like we have a sense of **belonging** to a family/land or culture, natural crops also **belong** to different families for different reasons. Today we are going to see how many families the key sugar molecule ‘starch’ **belongs** to. I hope that by the end of today’s programme you will be able to explain to someone else why starch is a sugar and why it’s useful in food. |
| **Respond**: Providing opportunities to use and practice  | *Modelling thinking**Active learning**Collaboration/ cooperative learning* | Once it is extracted from these raw materials it can be used in many products e.g. noodles, soups, hot dogs...it helps to preserve the ‘shelf life of food’ and now we know it is especially important in making bread. Did you know…..Starch is also useful for making paper, feeding animals and helping to create medicines. It’s got many magical uses!Starch is magical because it has a long chain of sugar molecules. This is what it looks like (show handful of starch). It is natures’ magical ingredient that we find within crops grown on our land.Can you remember what other magical ingredient from nature we have used recently? That’s right, yeast.Taro is a popular form of natural sugar and is used for cooking in the Pacific islands. Let’s watch a video to find out how Taro is grown in Hawaii <https://www.shechangeseverything.com/blog/what-is-taro-root> Presenter to reflect on what was seen in video.I wonder if you eat taro at home?I love taro ….(as fritters with coconut milk – whatever Monique prefers). What about you?Find connection to make with viewers at home.The sugar or starch comes from many natural things that we grow on our land: kumara (yams), potato, maize, wheat, rice, peas, taro and barley (see image on PPT). I wonder which one of these is your favourite?What do you mostly eat at home?Another favourite of mine is Kumara.I love it…(baked/ in soups etc. – whatever Monique prefers)What about you?Of course, here in New Zealand, especially in Northland (Tai Tokerau), we grow a lot of Kumara. Let’s visit a Kumara farm to see how it is grown <https://www.youtube.com/watch?v=ZWx3PYXg2z4#action=share>.Do you remember how we have read about growing pumpkins?What did you notice was the same about growing kumara?What was the difference about how we grow taro? Did you see that taro grows in water?All of these vegetables contain starch, our magical ingredient from nature. |
| **Share**: Learner and parent reflection on learning and engagement and what they can do next | *Recap of LI* | *Today we learned* why starch is a sugar and why it’s useful in food.We know now that:*-Starch is used in lots of ways and it comes from natural crops we grow on land**- Starch is a type of sugar – it’s a super power – like yeast**- we also had the chance to think a little more about belonging and how kai helps us to celebrate how we live as a whānau**- and also, how sugar and starch molecules have their own sense of belonging.**How cool is that!**Ok, well that’s all from me today.**Looking forward to seeing you all again soon.**Farewell in te reo Māori and at least one Pacific language (Monique to keep track of this).* |