Spirals and Fibonacci

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School Wide Exploration of Spirals and the Fibonacci Sequence

- Teaching through the land and our place
- Teaching through story
- Connecting to Indigenous culture
Number Talk

- Images from the book “Swirl by Swirl; Spirals in Nature”
- What do you see?
- What do you think?
- What do you wonder?
Connecting to the Fibonacci Sequence

- Using a picture book to learn about the Fibonacci Sequence
- How and where it is found in nature
Exploring Pinecones

- Building on learning from “Growing Patterns”
- Investigating different kinds of pinecones
- Looking for spirals and Fibonacci Numbers
I found at the top of the pine cone that there was the Fibonacci Sequence, starting with 1, 1, 2, 3, 5, 8.

When you look from the top, if you count the chips, it is in the Fibonacci sequence.
Creating Fibonacci Dreamcatchers

In the Ojibwe Dreamcatcher legend, there are Fibonacci numbers

- Mothers, sisters, grandmothers – 3 women
- 1 circle – represents Grandfather Sun
- 1 hope or feather in the center
- 8 points of connect the web to the hoop to honour Spider Woman
PRIMARY STUDENTS
INTERMEDIATE STUDENTS

Built their own dream catchers, intentionally including Fibonacci Numbers in them
I made a dreamcatcher today. I used white yarn for the web, and I added blue beads and feathers to it. I wrote all my wishes on the back of the dreamcatcher.

- I wish I could meet my favorite author.
- I wish I could travel to Paris.
- I wish I could learn how to play the guitar.
- I wish I could have a pet dragon.
- I wish I could be a super hero.

I hope my wishes come true!
Celebrating our Learning
Next Steps...Future Ideas

**SPIRALS AND FIBONACCI**
- Kindergarten exploration
- Extending knowledge about Fibonacci Sequence
- Extending into other curricular areas
- Inquiry into significant numbers in other cultures
  - Indigenous cultures
  - Non-Indigenous cultures

**CULTURALLY RESPONSIVE TEACHING**
- Continue to be open-minded
- Intentionally connect story to math as much as possible
- Using the land and our place to make real-life connections to math