## **Calming Jars Overall aims:** 1 Define anxiety, reaction, self regulation, respiration Reinforce understanding of the functions of the amygdala and the cerebral cortex Develop understanding of the relationship between the respiratory system and the Deepen understanding of cause and effect Make predictions Enhance fine motor confidence Promote entrepreneurship identify opportunities to repurpose materials 2 Vocabulary - keywords Self regulation, density, Sustainable abilities developed 3 Systems thinking Anticipatory competency Normative competency: Strategic competency: Critical thinking Self-awareness Pillars of sustainability included 4 **Economic** Ecological Social **STEAM domains** 5 Science, Technology, Arts, Math **Teaching methodologies/activity outline** 6 This is best carried out at the autumnal equinoxe (September 21st-23rd). The teacher designates a documentarian and activates prior knowledge by asking the children:



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"When you feel anxious, like you are going to "flip your lid", what do you do to calm down?

What helps you take deep breaths? What helps you quiet your mind?" Here the teacher can support a discussion around evaluating the different ways people choose to calm down. If some participants bring up eating or passively watching something on a device as a way to self regulate, the teacher can support the discussion by asking the children to reflect on the possible outcomes of this kind of self regulation. Is this sustainable? What are some more sustainable ways to self regulate? The teacher supports the discussion and invites the children to join her in creating calming

jars. The teacher and the children gather materials and create the jar, filled with half oil and half water with food colouring to highlight the difference in density. When the jar is finished, the teacher models mindful breathing while observing the water and oil movement in the jar and describes the effect, if any, that the jar has on breathing and feelings. The teacher passes the jar around and invites the children to do the same.

## 7 **Expected learning outcomes**

## The child will be able to:

- carry out the experiment, choose materials and create a calming jar
- Explain density difference in the jar
- Explain the jar's aim
- Explain that deep breathing permits the cerebral cortex to re engage with the amygdala
- Reflect on the jar's effectiveness

#### **Assessment** 8

Search for "teachable moments" throughout everyday routines and activities to explore opportunities to self regulate through using the calming jar or offering it to others. Make clear to the children that if they find the calming jar effective, they may create one and bring it home to share with their family. Ask what other tools can we create for self regulation. Water fountain? Punching bag? What repurposed materials could we use.

## 9 Equipment and materials to be used in learning unit (tools, ingredients etc)

Jars, vegetable oil, water, food colouring

## 10 Kind of setting - lab, kitchen, outdoor etc.

Indoors or outdoors

### **References - source:** 11

https://veryspecialtales.com/sensory-bottles-with-baby-oil/



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# Kids Lab 4 Sustainability



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