STEAMERs

LESSON PLAN

Seasons sensory bottles

Summary

Date		**Total duration**	70 minutes
Subject	Making four sensory bottles, one for each season, will engage students in science (physics), notably magnetism, while also teaching them about the seasons.		
Year Group or Grade Level	3-6 years old		
Main topic	• The students will learn what are the four seasons colours and how they can represent each season in a sensory bottle. • The students will predict, explore magnetic items and they will record the results on journal or worksheet.		
Subtopics or Key concepts	• Magnetism and magnetic poles • Attraction and repel	• Cooperative learning • Constructivism	

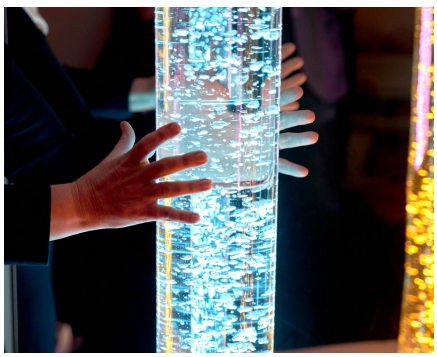
Learning Objectives

- To introduce preschoolers to the concept of magnetism.
- To demonstrate to preschoolers how combining different items they can create season sensory bottles.
- To encourage preschoolers to predict and experiment with magnetic items.
- To provide preschoolers with an opportunity
- to document and reflect on their
- observations.
- To enhance preschoolers' fine motor skills
- like hand to eye coordination.
- To foster creativity and artistic expression in
- preschoolers.

Material needed

- Magnetic items (paperclips, washers, bolts, screws, pipe cleaner)
- 4 Plastic or glass water bottles
- Baby oil, Food colouring
- Magnetic wand
- Flowers, Leaves, pebbles, sand, seashells
- Glitter, Fake snow, &/or snowflakes
- Pom-poms
- Funnel
- Journal for observations

Lesson Outline			
	Duration	**Guide**	**Remarks**
warm-up	10 minutes	Begin by introducing the concept of seasons to the preschoolers. Show them pictures or nature in each season.	
	05 minutes	Explain children that they are going to make 4 sensory bottles one for each season. Record their ideas of what can they include int the bottles.	TIP: Children can be split in four goups, so each group can create a seasonal bottle.
main activity	05 minutes	You can add snowflake or fake snow & glitter to create the winter effect.	
	05 minutes	To make a spring sensory bottle, you can insert a few flowers into empty water bottle.	
	05 minutes	Fill an empty bottle with some sand, then add a few rocks, pebbles and seashells to make the summer sensory bottle.	Add a drop of blue food coloring to create an ocean effect (optional).



main activity	05 minutes	Add some autumn leaves or metallic confetti and gold glitter to make the autumn sensory bottle.	
	05 minutes	Add some water or baby oil into the bottles and seal the bottles.	Allow children to explore the bottles, shake them and take a look of all seasons.
	05 minutes	Hand out magnets and ask children what happens.	Ask students to use the magnetic wand to explore if the items inside their nonmagnetic sensory bottle are moving.
	10minutes	Add the magnetic items to the bottle (like paperclips, screws, pipe cleaners) and seal them again.	Hand out magnets and ask children what happens this time.
Assessment exercise			
assessment	10-15 minutes	Ask children what items moved when they were waving the wand	Make a list of the items that were pulled by the magnet and the ones who were not, to sort out the magnetic items and non magnetic ones.
Conclusions and recommendations			

- Magnets can push or pull one another in different directions.
- Magnets are typically powerful enough that you can use one to move another around on top of a table without having them come into contact.
- Attraction is what happens when magnets bring things together or closer together.
- Magnets repel when they push other objects or themselves away.

Further reccomendations for the teachers:

https://littlebinsforlittlehands.com/magneticsensory-bottle/