



Lesson Plan Title: **The Floating/ Sinking Game**

Concept / Topic To Teach: Understanding Water and its properties and exploring the properties of other objects

Target audience: Primary School- Junior & Senior Infants

General Goal(s): To teach children about water in a fun, interactive way. It also incorporates the idea of voting.

Specific Objectives:

- To show children that water can be used in a fun way to learn.
- To teach children about properties of water and other objects.
- To introduce children to the concept of voting in a fun way.
- To encourage children to predict an outcome
- To encourage children to analyze
- To encourage children to express an opinion
- To encourage children to communicate
- To broaden vocabulary
- To introduce a conversation about water safety

Seven Step Link: All



Required Materials:

- A large see-through container (I use a large plastic drawer from a plastic storage unit I have for my recycling at home)



- Various items of different shapes and weights. I used fun items I thought the children would respond to like- a Frisbee, dice, a scissors, bottle of water, a shell, a ball, a sponge etc...
- A tea towel (to dry off items as you take them out of the water)
- I used the three jugs from the Jugs experiment to fill up the container
- Voting cards- I made two different sets of cards- one set with the word 'FLOAT' written on them and a picture of something floating in water and one set with the word 'SINK' written on them and a picture of something sinking in water. I laminated these.

Preparation Level: Low (once you have all the items you need gathered and have the voting cards ready)

Students' pre-requisite knowledge and skills: Children of this age will already be familiar with things floating or sinking. Children might have an idea about voting but will be able to give their opinion anyway.



Anticipatory Set (Lead-In): This activity would be part of a longer workshop for Junior & Senior Infants. I would have talked with the class about ways in which we use water. I would have done the Collage exercise, where I lay pictures of ways in which we use water on a table. I ask the child to name ways in which we use water and I ask them to come up and find the image they named on the table and to stick it onto the board. I then chat to them about other things that need water to live and I do the same exercise but with pictures of things that live in and around rivers and lakes and make a collage. If there's time I also do the same exercise and make a separate collage of things that live in the sea. Then I summarize about how important water is for all forms of life and I recap on ways we need and use water. I then ask them do they ever use water to have fun or play games. I would get them to list out ways in which they have fun with water. I would then tell them that we are going to now play a game called the 'Floating/ Sinking Game'.

Step-By-Step Procedures:

- Introduce the game by telling the class we are going to investigate which objects float and which sink when placed in water and why that is. I tell them they have to really look at the object and think about it and whether they think it will float or sink.
- Explain to them that they each get two cards to vote with. I would explain briefly what voting means and I would give them each two cards and read them with them and look at the picture on them so that each child knows which card is which.
- Ask three children to fill each of the three jugs with water to pour into the container.
- Lay out the tea towel beside the basin to put each item on to dry after it comes out of the water.
- Hold up each item and get the children to name it first so that everyone knows what the item is.



- Ask the children to describe the item, ask questions like ‘is it heavy or light’ are their holes in it, would this affect it sinking or floating’ etc...
- Then ask the class to hold up their ‘sink’ or ‘float’ card to vote on whether they think it will sink or float.
- You can call up a child to place the item into the water if you like.
- After they vote and the item is placed in the water watch to see if it sinks or floats.
- Ask the children why they think this happened- was it because of its weight, shape etc... to get them to think about the properties of the object.
- Repeat with each item.

Closure: Have a general chat about the game and if they liked it. Talk about sinking and floating in general. Talk about swimming and the different floatation devices that help us learn to swim like floats, inflatable ring, lilos etc... Chat about how it is important to learn how to swim. Talk about how it is easier to float in the sea than in a pool, ask the children do they know why this is and chat about salt water. Maybe chat about boats and why they float on water. Summarize by talking about how much fun we can have with water once we are safe and respect water as it can be dangerous.

Adaptations for students with learning difficulties:

This activity is fun and simple for all students. For children with learning difficulties you could leave out the voting cards and make the exercise more informal and interactive.



Extensions for all students:

Colouring sheet or puzzle activity sheets based on the topic of water.

Suggestion of follow-on activities for the teacher to do with children:

You could suggest that some students may want to try and build their own toy boat or raft from recycled materials to see would it float in a basin or water.

Links to other subjects

English:

Receptiveness to Language

Reading

Developing competence and confidence in using oral language.

Developing cognitive abilities through language.

Emotional and imaginative development through language.

Geography:

Geographical investigation skills- questioning, observing, predicting, estimating and measuring, analyzing and communicating.

Human environments.

Natural environments.

Environmental awareness and care.



Science:

Working scientifically- questioning, observing, predicting, estimating and measuring, analyzing (sorting and classifying) and communicating.

Designing and making- exploring, planning, making and evaluating.

Living things.

Materials- properties and characteristics of materials.

Environmental Awareness and care.

Visual Arts:

Concepts- an awareness of shape, form, texture etc...

Construction- making constructions.

Physical Education:

Aquatics- water safety, buoyancy, understanding and appreciation of aquatics.

Social, Personal and Health Education:

Myself- Developing self-confidence, making decisions, safety and protection.

Myself and the wider world- environmental care