Gr. 2 - Understanding Structures & Mechanisms

Movement

Lazy Susan

Specific Expectations:

2.1 Follow established safety procedures during science and technology investigations.

2.2 Investigate and describe different kinds of movement.

3.1 Describe different ways in which objects move.

3.2 Identify ways in which the position of an object can be changed.

Big Idea (for lesson):

Students investigate different materials and bring them together to build a Lazy Susan structure with a purpose. Students are also able to describe the function and movement of the structure, as well as its composite materials.

Accommodations:

- ☒ Increase time
- ☒ Visual Aids
- ☒ Manipulatives
- ☒ Chunking
- ☒ Step-by-Step
- ☒ Scaffolding
- ☒ Copy of Notes
- ☒ Student Grouping

Differentiated Instruction:

- ☒ Content: Use demo to show the content as you offer verbal descriptions.
- ☒ Process: Have students work in pairs and support each other if physical impediments exist.
- ☒ Product: Students may show their final product in pairs, and communicate their findings either verbally, visually, or through written means.
- ☐ Other: _____

Bloom's Taxonomy:

- ☒ Knowledge
- ☒ Comprehension
- ☒ Application
- ☒ Analysis
- ☐ Synthesis
- ☐ Evaluation

Multiple Intelligence:

- ☒ Verbal/Linguistic
- ☒ Logical/Mathematical
- ☒ Visual/Spatial
- ☒ Bodily/Kinesthetic
- ☒ Naturalist
- ☐ Musical/Rhythmic
- ☒ Interpersonal
- ☒ Intrapersonal

Delivering The Lesson:

Portion & Timing	Grouping:			Introduction:	Materials
	W	S	I		
Minds On: 10 mins	☒	☐	☐	Teacher can do a demonstration to introduce friction and its effect on movement for the lesson; either watch the video or do the demo in-person.	Jitter-Critters – Floating Rice Trick

				Ask students (without showing the whole video) why they think the bottle did or didn't move? (*Answer: there was more rice in one bottle to rub against the chopstick and prevent it from sliding*.) Ask students if they think friction is useful, and if they can come up with any situations where friction would be bad.	– Cool Science Experiment.mp4 2 – Plastic bottles 2 – Chopsticks Rice 2 – Beakers
Action: **15 mins**	W ☒	S ☒	I ☒	Have students build their own Lazy Susan according to the instructions on the handout. Teacher can circulate and ask questions of the different groups: -Do you think friction is involved with this situation as well? (*Answer: Yes, friction stops the Lazy Susan from spinning around forever.*) -How do the marbles help the Lazy Susan spin? (*Answer: They allow the plate to roll over the marbles, an easier motion to complete that just sliding things across.*) -Why do you think rolling is easier than sliding? (*Answer: Because less of the two objects are actually touching, hence less friction.*)	Lazy Susan Handout (Materials listed)
Consolidate: **10 mins**	W ☒	S ☒	I ☐	Have students rub their hands together really quickly for a few seconds. What do they notice? They should notice that their arms will get tired over time and that their hands were getting hotter. Ask students if they think heat is an issue in machines whose parts rub together. Then ask them what they could put on their hands to make them rub more smoothly. (*Answer: soap, or oil!).* Explain to them that machines use things called **lubricants** which are slipper substances that fill the spaces between bumps that make a surface "rough". Instead of parts rubbing against each other, they rub against a smooth lubricant. Ask students why their bones don't heat up when they rub against each other? (*Answer: their joints have a special lubricant too, called synovial fluid,*	Hand Soap

				allow bones to slide comfortably across each other).	