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| **Grade 1** | **Lesson:** **Rolling/Sliding****Objects Move - Part 2** | Reference to English Interconnections LessonObjects Move pg. 131 |
| **Science Standard(s): Standard 3.1 Physical Science** |
| **Content Objective(s):** | **Language Objective(s):** |
| Students will identify objects that move and do not move when rolled during the experiment individually.***I can identify objects that move and do not move when I roll it during the experiment by myself.*** | Students will use a complete sentence to identify the objects that roll and don’t roll during a partner activity. ***I can use a complete sentence to tell the objects that rolled and did not roll to my friend.*** |
| **Essential Questions:**How can we investigate the natural world in my neighborhood? | **Required Academic Vocabulary for Word Wall:****Listen:** roll, push, pull**Speak:** rolled, roll**Read:** **Write:** **Sentence Frames:**\_\_\_\_\_\_\_ rolled.\_\_\_\_\_\_\_ did not roll. |
| **Materials:*** “Motion” chart (1 per student)
* variety of small, unbreakable objects (1 per student)
	+ balls, blocks, bottles, lids, feathers, pencils, chalk, stapler, paper clip, books, toy cars, etc.
 | **Additional Lesson Vocabulary:**slide, straight, curved, fast, slow, round, gravity, record, results**Review Objects:**Move, blow,  |
| **Lesson:**  | **Instructional Time:**  |
| **Opening (Warm Up/Review):** **(5 minutes)*** Have objects from the blowing lesson prepared in the front of the classroom.

**T: “Last time we learned about moving things by blowing on them. Look at all of these objects. I need you to help me sort them into two groups. Objects that we moved by blowing and objects we could not move by blowing.”*** Present the objects to the students 1 at a time. Sort the objects as the students respond with yes or no according to whether the objects can be moved by blowing on them. Label can blow and cannot blow to move.

**T: “Will this object move if I blow on it? Yes or no?”**S: *will respond with “yes” or “no”***Introduction of New Material (Direct Instruction): (minutes)****T: “Today we NOT going to blow these objects, but we are going to roll them.”*** Take some of the objects and demonstrate what rolling is while you say “roll”
* As you are rolling the objects do a think aloud by asking questions without expecting answers.

**T: “Does this object roll? Think about it. If I push this object does it roll or stay still? What happens if I pull the object? Does it come to me or stay still?”****Experiment and Record: (15-20 minutes)***Use the modeling cycle:*Teacher Does:**T: “Today we are doing the same activity as yesterday. You will go to 6 different objects. You will NOT blow on them, but roll them. I will first show you how it is done…just to remind you.”****T: “First a collect my “Motion” chart. Then I go to my first object. Remember there is one for each of you to start with. So, only one person at an object at a time.”****T: “I have my “Motion” chart, I am at my object and then I will blow or roll the object?”**S: *will shout out “roll”***T: “Yes, you are correct I will roll it like this. Did it roll or stay still?”**S: *will respond, “it rolled” or “it did not roll” or “it stayed still”***T: “I better record the results like this.”**1 Student Does:**T: Awesome! I need one more person to come up and show me one more time how we did this activity.”**S: *one student will come up and collect the “Motion” chart, go to their first object and roll it.* **T: “Great job, they collected their “Motion” chart, WALKED to their object and rolled their 1st object. Did it roll or did it stay still?”**S: *will respond “it rolled” or “it did not roll” or “it stayed still” “***T: “You better record the results before you can move on to the next object.”**S: *will record the results.*All Students Do:**T: “Now it is our turn. As I call your name you may stand up, collect your paper and get started. Remember you will go to 6 objects, but you must wait until I clap to move to the next object.** S: *will get started with the activity.** As the start the activity walk around all the objects. Only have them stay at an object for a minute or two. They need to roll the object then record the results.

**Discussion and Report: (10 minutes)****T: “Now that you have completed the experiment, let’s do a bicycle chain to share the results with our friends. You will tell each other about your objects. Did they roll or stay still? I need one student to come up and help me model what I want.”*** Choose one student to come up and demonstrate the activity.

Teacher Does with Student:**T: “Let me show you my chart 1st. ‘the ball rolled’ or ‘the pencil rolled’ or ‘the block did roll’** (go through all 6)**.”****T: “Now it is your turn, show me your chart. Tell me which items rolled and which ones did not.”**S: *will show the teacher the chart and tell them the items that moved and the ones that did not. “the ball rolled” or “the block did not roll.”*Two Students Do:**T: “Now I need two students to come up and model.”*** Teacher chooses two students.

**T: “Student #1 you will start. You will say ‘\_\_\_\_\_\_ rolled’ or ‘\_\_\_\_\_\_ did not roll’.**S: *student #1 will show their chart and say “\_\_\_\_\_ rolled” or “\_\_\_\_\_\_\_ did not rolled” for each of the 6 items.***T: “Good job! Student #2, your turn. You will say ‘\_\_\_\_\_\_rolled’ or ‘\_\_\_\_\_\_\_did not move’.**S: *student #2 will show their chart and say “ \_\_\_\_\_\_ moved” or \_\_\_\_\_\_\_\_ did not move.”*All Students Do:**T: “Awesome! Now all of you get to try. Let’s stand up and make two lines. On this side I want all the boys. The other line is all girls. Face each other and tell them about your six objects. When I clap we will switch people.”*** Help the student form the bicycle chain.
* After the students have visited with one friend have one line move while the other stays still. Let them chair their “Motion” chart results with at least 2 other students.
* Walk around the groups as they do the activity.

S: *will partner up and explain which items that rolled and which ones did not.***Closing: (5 minutes)*** Bring the students back together for questioning.

**T: “Which shapes rolled? Did the blocks roll? Did the ball roll?...”**S: *will respond.* **T: “Good, which shapes did not roll? Did the blocks roll? Did the ball roll? ….”**S: *will respond.* |
| **Assessment:** |
| Observe how the students tell their partners about their “Motion” chart. Observe the students when they do “Think, Pair, Share” to see if they can successfully communicate their answers to the questions. |
| **Extra Ideas:** |
| * Marble races: Have students discover that you can change the speed of rolling by changing the steepness of the ramp. Use a wrapping paper tube that you have cut in half, Allow students to create a ramp using more/fewer books and fins out which marble reaches the finish line first
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Motion Chart

Type of Motion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (blowing, rolling, sliding)

|  |  |  |  |
| --- | --- | --- | --- |
| Object | PredictionWill/Won’t | ResultDid/didn’t | Draw the motion |
| 1 |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |