**EduTOOLBOX – Pre-K Science Experiment Lesson Plan**

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| **Lesson Title:** | “Ghost Guts”  *This is a fun lesson to do around Halloween.* |
| **Lesson Objective:** | Students will explore changing matter. |
| **Aligned Standard(s):**  **(TN-ELDS)** | PK.PS1.01b. Demonstrate an awareness that matter exist in different states (i.e., solid and liquid) and that matter changes as a result of changes in its environment. |
| **Assessment Method:** | Teachers will document student learning using photos, videos, and anecdotal notes. |

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| **Intentional Vocabulary:** | Liquid  Solidify |
| **Materials Needed:** | White glue (1 tablespoon per child)  Liquid starch (1 tablespoon per child)  Disposable bathroom cups (1 per child)  Popsicle sticks (1 per child) |

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| **Lesson Procedures and Questioning** | | |
| **Lesson Section** | **Detailed Procedure** | **Questioning Sequence** |
| **Introduction:** | This experiment combines two liquids and changes them into a polymer (a stretchy solid).  Lead a discussion with students about the difference between a liquid and a solid. Introduce the materials today. Tell students that scientists make predictions before they conduct an experiment. | * Do you think this glue is a liquid or a solid? Why? * Do you think this starch is a liquid or a solid? Why? * What do you think will happen if we mix these 2 materials? |
| **Exploration:** | Give each child a cup and popsicle stick. Pour equal amounts of glue and liquid starch in each cup and have children stir to combine. As they stir, the mixture will begin to solidify. Talk to the students about the word “solidify” and what it means. Encourage students to use the word “solidify”. Encourage the children to remove the mixture and roll, pull, and stretch it! | * What happened there? * What do you notice about the mixture? * How does your mixture feel? * How does your mixture look? * What can you do with your mixture? |
| **Closing:** | Guide students in a discussion to reflect on their learning. | * What happened when we mixed the materials? * Were our predictions correct? * Can you think of other materials that you can make solidify? |

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| **Extending the Learning:** | Place the mixtures in the sensory area of the classroom. Encourage students to try mixing other objects (i.e., ice, water, shaving cream, oil, dirt) in the science center. Encourage students to use the vocabulary from the lesson throughout the classroom day. |
| **Considerations for Learning:**  *possible challenges, management issues, and safety considerations* | *This lesson can become a chaotic mess if management is not considered. Teachers should use discretion of whether to conduct this lesson in whole group, small group, or individual format. Keep wipes and paper towels nearby to help clean up mess. Students will need to wash their hands after the lesson. Remind students of safety rules for science experiments before beginning the lesson. Remind students that nothing should ever go in their mouth or ears unless specifically instructed to do so.* |