

ODOT program builds bridges between schools and the private sector

By Monte Muirhead
WR staff writer

McGovern Elementary School students used penny "automobiles" and Starburst candy "trucks" to learn about stress and tension that are placed on highway bridges. A group of engineers from the Oregon Department of Transportation, Quincy construction, and Zetlin Strategic Communications, conducted three school assemblies Wednesday, May 23.

"This is a model for institutional partnering," said Lois Cohen of Portland-based Zetlin. The groups that participated in the exercise are part of the Salem-based Oregon Bridge Delivery Partners. ODOT had scheduled two open houses in Winston and Roseburg to educate the public about four

bridge projects in the area. Officials conducted the assemblies to coincide with ODOT's open houses.

"We hope the children's enthusiasm will be contagious and generate interest among their parents, so the parents will join us at the open house," said Cohen. "This (school assemblies) is not something they (contractors) have to do. They're donating their time and efforts, and the feedback we've gotten has been great," she said.

During the assemblies, students were given a piece of construction paper to place across two pieces of wood. By folding the paper, simulating a bridge beam, students learned how to reinforce the paper to hold more vehicles. Students whose bridges held the most pennies (cars) or Starbursts (trucks)

without collapsing won the competition.

Cohen said one objective of the exercise is to introduce children to the field of engineering as a possible profession to pursue after school. "This is a very hands-on way for children to learn...how is my math and learning fractions really relevant to a job?" said Cohen.

Oregon Bridge Delivery Partners is taking its engineering assembly to schools in areas where bridges are undergoing repairs. More than 600 children have already participated in the program, according to Cohen, in communities such as Merlin and Ashland. The assembly will be given at Winchester Elementary School this fall.

"We came up with this school program, which seemed to address multiple needs. The

response so far has just been amazing," said Cohen. During the assembly, engineers teach students about the three types of bridges, and the support system that each bridge uses.

The most common bridge is a beam bridge; students did a push-up to simulate where a beam-style bridge would feel its stress.

There are suspension bridges that use tension to stay erect; students paired off, faced each other, grabbed each other's arms, and leaned backwards still holding on to each other, to simulate the tension in a suspension bridge.

The third type is an arch bridge that uses compression as its means to stay erect; students would face each other, grab each other's arms, and then lean forward into each other to simulate compression.

Winston Reporter photos by
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McGovern Elementary School student Aryon Braz, left in top right photo, adds a starburst candy to the bridge while Cherya Mason watches.

Jessica Hilenman, Sierra Martin, and Nikki Dyer, left to right in bottom right photo, build their own bridge, during a school assembly Wednesday, May 23.

