

# Common Instrument Suite-Student (CIS-S) Traditional Pretest-Posttest

## SAMPLE

The Common Instrument Suite-Student (CIS-S) is a youth self-report survey that measures a variety of STEM-related attitudes, including STEM interest, STEM career knowledge, and STEM identity. PEAR is happy to offer three different survey designs:

1. Traditional pretest-posttest (two administrations one at beginning and one at end)
2. Retrospective change (one administration at end)
3. Retrospective pretest-posttest (one administration at end)

The **traditional pretest-posttest** method asks students to complete the survey twice: once at the beginning of the program and once at the end of the program. Change is measured by subtracting pretest scores from posttest scores. This survey is typically on a 4-pt Likert scale from “Strongly Disagree” to “Strongly Agree.” The traditional pretest-posttest method has the advantage of being the most widely used design, and it allows you to establish a baseline of how students are feeling about STEM before they experience your program

### Practice Question:

	<i>Please pick the bubble that matches how you feel about these sentences.</i>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
1.	I get excited about STEM	1	2	3	4

## Sample Survey Items

<i>Scale</i>	<i>Outcome Measure</i>	<i>Sample Items</i>
<b>Common Instrument</b>	<ul style="list-style-type: none"> <li>Measures how interested and enthusiastic a student is about STEM and STEM-related activities</li> </ul>	<ul style="list-style-type: none"> <li>“I get excited about STEM.”</li> <li>“I get excited to learn about new discoveries.”</li> <li>“I would like to have a STEM job in the future.”</li> <li>“I like to make things.”</li> </ul>
<b>Additional Subscales:</b>	<b>Outcome Measures</b>	<b>Sample Items</b>
<b>Science Identity</b>	<ul style="list-style-type: none"> <li>How much a student sees themselves as a STEM person</li> </ul>	<ul style="list-style-type: none"> <li>“I think of myself as a STEM person.”</li> <li>“My teacher thinks I’m good at STEM.”</li> </ul>
<b>PISA</b> (Items inspired by the Program for International Student Assessment)	<ul style="list-style-type: none"> <li>How motivate a student is to get a career in STEM</li> <li>How knowledgeable a student is about obtaining a career in STEM</li> <li>How much a student enjoys participating in STEM- related activities</li> <li>How often a student seeks out STEM activities.</li> </ul>	<ul style="list-style-type: none"> <li>“Working hard now will help me do STEM later.”</li> <li>“I know where to find information about STEM jobs.”</li> <li>“I have fun learning STEM.”</li> <li>“I watch STEM TV shows.”</li> </ul>
<b>HSA</b> (Holistic Student Assessment items)	<ul style="list-style-type: none"> <li>Positive connections and attitudes toward interactions with adults</li> <li>Positive and supportive social connections with friends and classmates</li> <li>Persistence in work and problem-solving despite obstacles</li> <li>Examination of information</li> <li>Exploration of ideas, and independent thought</li> </ul>	<ul style="list-style-type: none"> <li>“There is at least one adult I can talk to about my problems.”</li> <li>“I keep going with work even if it takes longer than I thought it would.”</li> <li>“If the way I’m doing something isn’t working, I try to think of different ways to do it.”</li> </ul>