#### Score 3

stretched the most bring 22 mm

TI and 23 mm T2. The students

Could nave made the experiment

better if they did one more

trial also they could have

been more specific in there

procedure for example they should

nave told you the amount of

weight you add to the plastic.

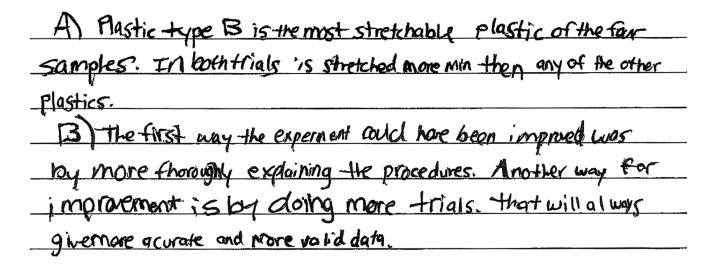
The student provides an acceptable conclusion based on the data: "...plastic B stretched the most...." Two correct ways to improve the experimental design and/or the validity of the results are given: "...if they did one more trial..." and "...they should have told you the amount of weight you add to the plastic."

#### Score 3

Based on the students data, plastic type B stretched the most, plastic type D stretched the second most, plastic type C stretched the third most, and plastic type A stretched the least. Two ways that the students could have improved the experimental design /validity of the results are having a set weight of the weights added every 5 minnutes, have a set length for the plastics at the start of the test

The student provides an acceptable conclusion based on the data: "...plastic type B stretched the most...." Two correct ways to improve the experimental design and/or validity of the results are given: "...having a set weight of the weights..." and "...have a set length for the plastics at the start of the test." Adding weights every 5 minutes is a minor error and does not affect the final score of the response.

#### Score 2



The student provides an acceptable conclusion based on the data: "Plastic type B is the most stretchable plastic of the four samples." One correct way to improve the experimental design and/or the validity of the results is given: "...by doing more trials." Explaining the procedures more thoroughly is too vague to be considered an improvement to the experimental design and/or the validity of the results.

#### Score 2

I can drow from the students experiment
that plashic tupe B was the strongest based
upon the data. One way that the student
could have improved his investigation would
be to give a specific length to cut the plashic
precedure how much of the plastic should have
been on the table where it was to ped these
two charges could have made a more
clear experimental procedure

This student provides an incorrect conclusion based on the student's data: "...plastic type B was the strongest...." However, two correct ways to improve the experimental design and/or the validity of the results are given: "...give a specific length to cut the plastic pieces into as well as to put into his procedure how much of the plastic should have been on the table where it was taped."

#### Score 1

The conclusion of this lab is that plastic B stretched the
most.
The students could have improved the experiment by
saying what type of plastic they used, and how
high the table was that the plastic was
hanging from.

The student provides an acceptable conclusion based on the data: "...plastic B stretched the most." Two ways to improve the experimental design and/or the validity of the results are given, but they are irrelevant and do not receive credit: "...saying what type of plastic they used, and how high the table was that the plastic was hanging from."

#### Score 1

A) based on the information, all of the polymers had

simular			amount		` <i>'</i>		
and sec	ond tri	als	***************************************				
B) TWO W	9				<b>VS</b>		
experim				•			
trial, S	ylamis	becar	useit	could	have 1	helpe	CL_
more f	or com	parin	a resu	Its. A	nother	LUCY	they

could have improved it would be by using another

amount of time for comparrison

The student fails to provide an acceptable conclusion based on the data. Only a general comparison between the two trials is given. One correct way to improve the experimental design and/or the validity of the results is provided: "...by having a third trial...." The second improvement given, "...by using another amount of time for comparison [sic]," is too vague to receive credit.

#### Score 0

Intrial 1,

a) The Plastic Type A wrap stretched 10mm, the Plastic type

B wrap stretched 22 mm, the Plastic Type C wrap stretched

14 mm, and the Plastic Type D wrap stretched 20mm, Intrial

2, the A wrap stretched 12 mm, the B wrap stretched 23 mm,

the C wrap Stretched 13 mm, and the D wrap stretched

20 mm. The student could have improved the validity

of the results by stretching the plastic wraps to see

which one stretched the longest.

The student repeats data from the chart and does not provide a valid conclusion. One way to improve the experimental design and/or the validity of the results is provided ("The student could have improved the validity of the results by stretching the plastic wraps to see which one stretched the longest."), but it does not receive credit because it merely repeats part of the procedure for this investigation.

Score 0

Test I was good. Test 2 for plastic type A and B streehed langer than Test I. They could have had more different kinds of plastics and kept the weights on.

The student appears to be comparing trials rather than plastic types and does not provide a valid conclusion. "They could have had more different kinds of plastics and kept the weights on" are not valid ways to improve the experimental design and/or the validity of the results.