

PRACTICE TEST SCIENCE INQUIRY TASK STUDENT ANSWER BOOKLET

GRADE 8 SCIENCE

STUDENT NAME: _____

SCHOOL NAME: _____

DISTRICT NAME: _____

(PLEASE PRINT)



INCORRECT MARKS



CORRECT MARK



STUDENT NAME																												
LAST NAME															FIRST NAME										MI			
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	
J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	

STATE ASSIGNED STUDENT ID										
0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
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8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9

GENDER	
<input type="radio"/> Female	<input type="radio"/> Male

BIRTH DATE			
Month	Day	Year	
JAN	(1)		
FEB	(2)		
MAR	(3)	0	0
APR	(4)	1	1
MAY	(5)	2	2
JUN	(6)	3	3
JUL	(7)	4	4
AUG	(8)	5	5
SEP	(9)	6	6
OCT	(10)	7	7
NOV	(11)	8	8
DEC	(12)	9	9

GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

Organizing and Presenting Your Data

Directions:

You will work on your own to organize and present your data, analyze and use your results, and evaluate the investigation.

- Answer questions 1 through 8 as completely as you can.
- Write your answers in the spaces provided.
- Copy your data and calculated averages from the data tables on page 7 in your Task Booklet to the data tables below.

Effect of Slope on the Movement of the Small-Mass Stationary Car

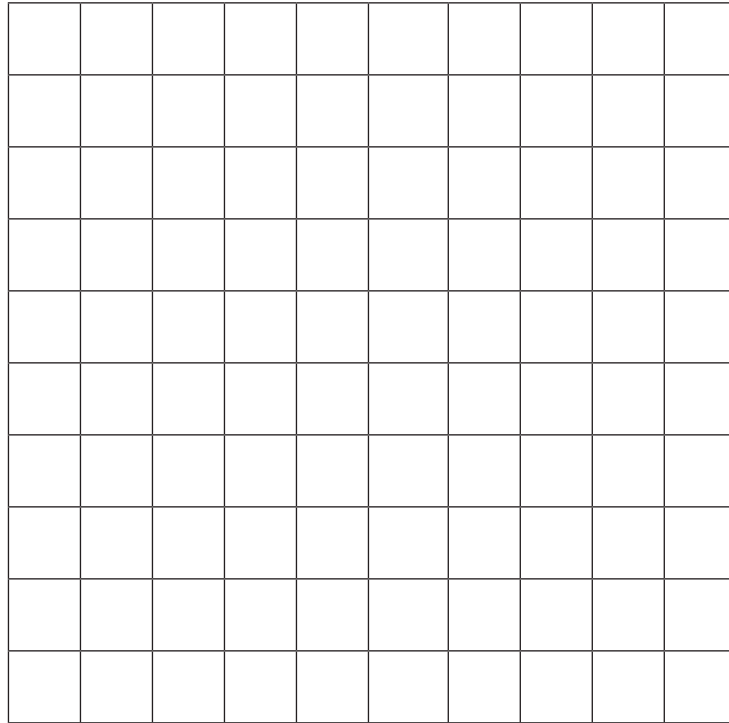
Trials	Low Slope	Medium Slope	High Slope
1			
2			
3			
Average Distance			

Effect of Slope on the Movement of the Large-Mass Stationary Car

Trials	Low Slope	Medium Slope	High Slope
1			
2			
3			
Average Distance			

GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

1. Use the information from the data tables on page 2 to construct **one** graph. Graph the relationships of the average distances to the slopes of the hill for the small- and large-mass cars. Make sure to title your graph.



GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

Developing Explanations

- 2.** How does the mass of a parked car affect the distance it moves when hit? Be sure to use **your data** to explain your answer.

- 3.** How does the **slope of the hill** affect the distance a parked car moves after it is hit? Be sure to use **your data** to explain your answer.

GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

4a. Look at your Prediction A on page 2 in your Task Booklet. Does your data support your prediction?

Yes

No

4b. Explain how your data and observations do or do not support your Prediction A.

5a. Look at your Prediction B on page 2 in your Task Booklet. Does your data support your prediction?

Yes

No

5b. Explain how your data and observations do or do not support your Prediction B.

GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

Making Predictions

- 6.** Think about what you learned in this investigation and what you know about force and motion. Predict what might happen if a moving car (represented by the battery) on a **flat, dry** surface hit a stationary object. Explain your answer.

- 7.** Look at your prediction in **item 6**. Identify at least two variables and explain how each variable could influence the outcome of the collision.

GRADE 8—PRACTICE TEST SCIENCE INQUIRY TASK

Planning Investigations

- 8.** Design an investigation that uses models to test the prediction you made in item 6. List the procedure (steps) to guide your investigation. Be sure to include the variables that will be measured or controlled.

