DE BRON VRIJE ASO.SCHOOL	eTwinning	HAGALIDSKOLAN

Here we go! The creation of a mechanically controlled car
Test your car

TEAM B6	
Pupils Belgium	Pupils Sweden
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1. ORIENTATION

1.1. **Research questions:**

➢ What will be the average speed of the mechanically controlled car?

➢ Which changing of parameters has the best result (fastest speed)?

1.2. **Hypothesis**

(*here you only have to make a hypothesis about question 2*)

Sweden: (no changes made)

Belgium: How bigger the balloon, how faster the car will go.

2. PREPARATION

On the other document (twinspace) you see the sketches and propulsion of the car.

2.1. Parameter that will be changed:

(here you describe what you will change to the car)
Sweden: (no changes made)

Belgium: the size of the balloon

2.2. Method:

2.2.1. Let your car drive and measure the distance that is possible.

2.2.2. Now, for the experiment, choose a distance that is shorter then the maximum distance. Make a sign on the floor on that distance.

2.2.3. Let the car drive and measure the time.

2.2.4. Calculate the average speed.

2.2.5. Repeat this three times.

2.2.6. Now, change a parameter and repeat the whole experiment.

3. DATA ANALYSIS and DISCUSSION

3.1. Observations and Measurements:

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	1,20	1,21	0.991
2	1,20	1,75	0.686
3	1,20	2.01	0.597

Changing of a parameter: a bigger balloon

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	1.20	1.80	0.667
2	1,20	1,99	0.603
3	1;20	1,73	0.694

	DISTANCE (m)	TIME (s)	AVERAGE SPEED (m/s)
1	1.45	2.50	0.58
2	2.90	2.25	1.3
3	2	2	1.015

4. REFLECTION

4.1. Conclusion: (*here you discuss when the car drives fastest with or without changing*)

Belgium: with a smaller balloon the car goes faster

4.2. Comparison of the results of the different countries:

The average speed of the Swedish cars is faster then the Belgian cars