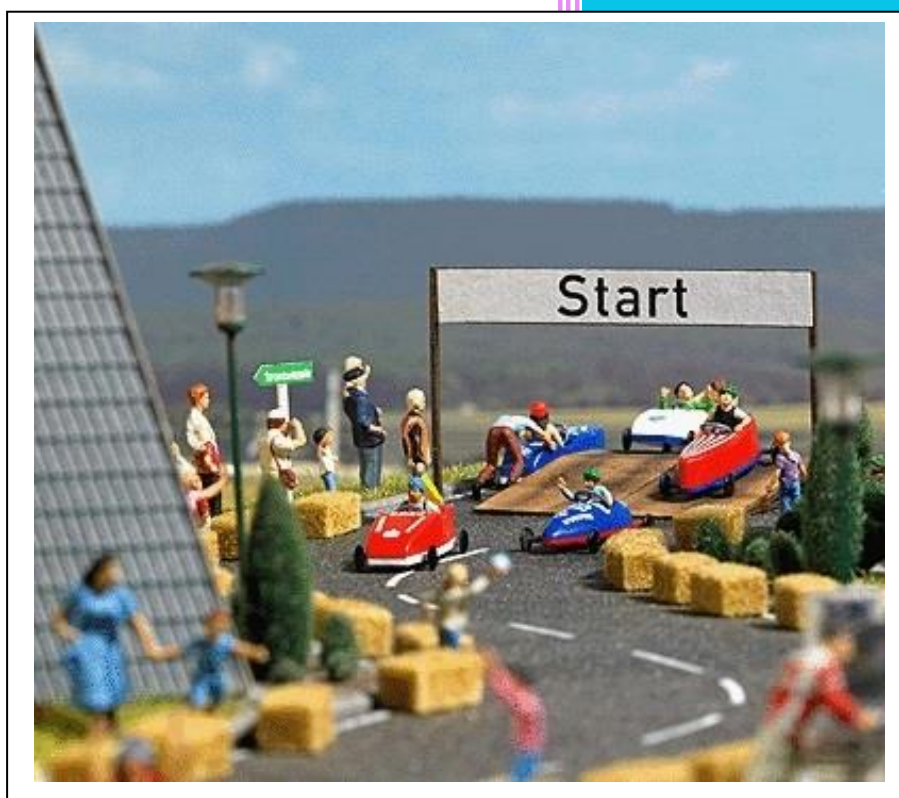




stem4math

# Soap box race



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## Engage

### The 'soap box race' ...

Write down what you think will be important criteria for the soap box car.

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## Investigate

Before we start thinking about making a soap box car, we need a racing circuit with a starting slope.

How do we create an optimal slope for the soap box car?



We investigate: .....

Prediction:

.....

.....

.....

?	How far did the car go?		

We investigate: .....

Prediction:

.....

.....

.....

?	How far did the car go?		





## Conclude

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## Create

### How to build a soap box car based upon the agreed criteria?

The challenge is to build a soap box car that can go as far as possible on its own. Discuss in your group how you will build the soap box car.

Of course, you first need a plan!

Make a plan of your car on a big piece of paper

- Think of the criteria we agreed on!
- What materials will you need? (Take a look at the materials we have in our class)
- Draw the different parts of the car
- Make clear on the plan how you will attach the different parts of the car



PLAN:

CREATE now the car according to the plan!





# Investigate

What do you think? Will your car reach the finish line? (Prediction)

YES // NO (Why do you think so?)

## First test of your self-made soap box car!

Did your car reach the finish line? YES // NO

1. How much time did it take to reach the finish line?

*Hint! Do several attempts and make an average!*

..... (Measure!)

<p>What went (not so) well</p> <p>.....</p> <p>.....</p>	<p>Why?</p> <p>.....</p> <p>.....</p>	<p>What will you optimise?</p> <p>Point out on your plan how you will do it (use a different colour!)</p>
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2. Change your car according to attempt 1.

How much time did it take to reach the finish line?

*Hint! Do several attempts and make an average!*

..... (Measure!)

<p>What went (not so) well</p> <p>.....</p> <p>.....</p>	<p>Why?</p> <p>.....</p> <p>.....</p>	<p>What will you optimise?</p> <p>Point out on your plan how you will do it (use a different colour!)</p>
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3. Change your car according to attempt 2.

How much time did it take to reach the finish line?

*Hint! Do several attempts and make an average!*

..... (Measure!)

<p>What went (not so) well</p> <p>.....</p> <p>.....</p>	<p>Why?</p> <p>.....</p> <p>.....</p>	<p>What will you optimise?</p> <p>Point out on your plan how you will do it (use a different colour!)</p>
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# Report

Make a movie about your soapbox car and your race!

