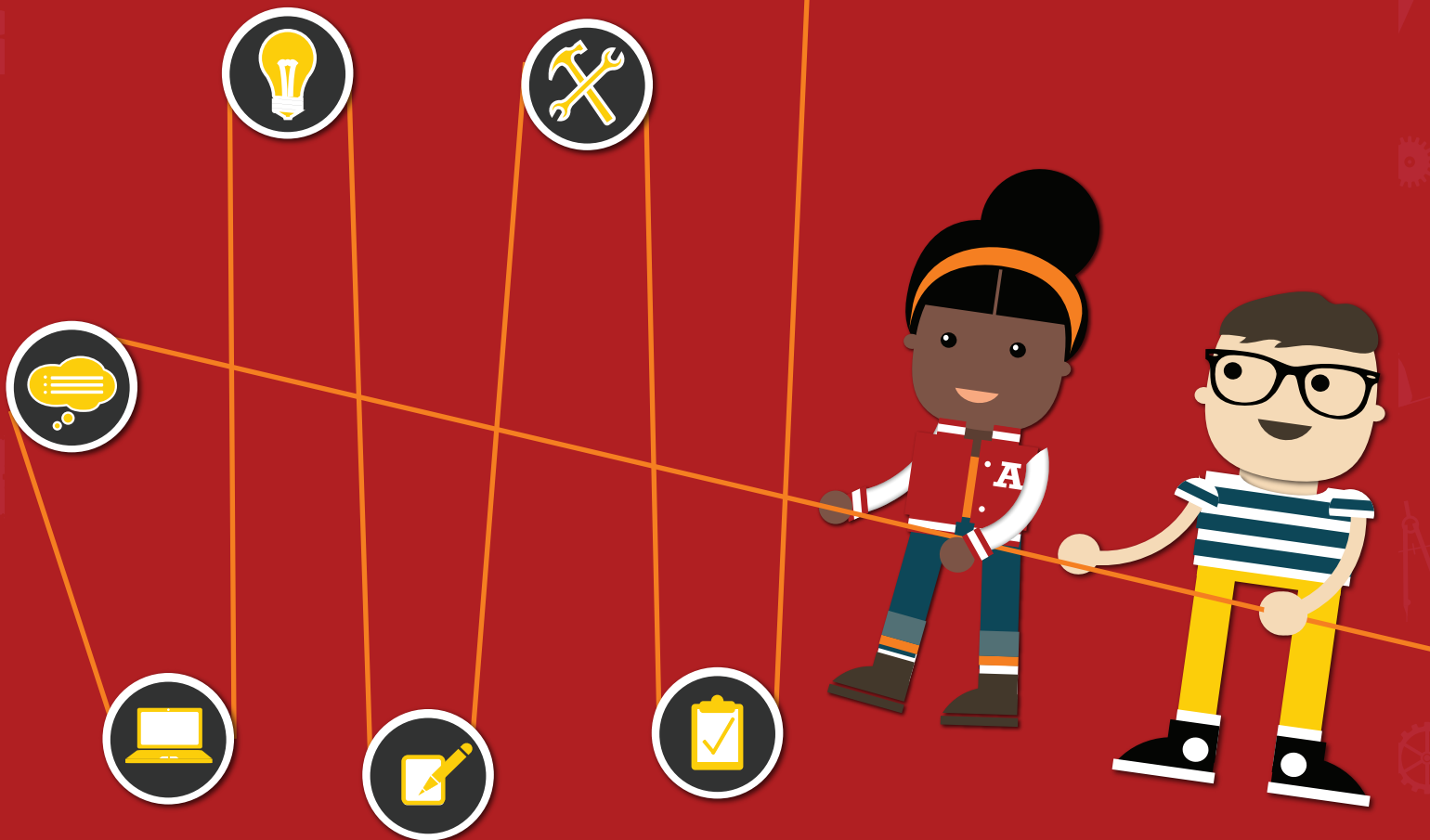




# ENGINEERING EXPLORATION CHALLENGE



Follow the Engineering Process  
to Complete the Challenge

 NATIONAL  
GEOGRAPHIC  
**KIDS**



## Define the problem

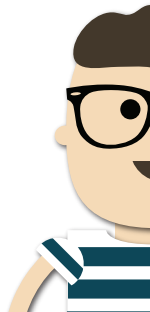
Define in your own words the problem you need to solve.

Make a list of the requirements for your solution.

What difficulties do you think your team will have?



Questions	Answers

A cartoon illustration of a young boy with brown hair, wearing black-rimmed glasses and a blue and white horizontally striped shirt. He is positioned in the bottom right corner of the page, looking towards the left.

# RESEARCH



## Propose a solution

Write a summary of your proposed solution.

How will you test your solution to see if it works?

**PROPOSE**

Design your solution



Draw your solution.

Label materials and include measurements.



DESIGN

You've designed it,  
now create it!

Build your solution



Test your solution



Draw your testing set up. How will you test your solution?





Test your solution and record notes from your testing.  
Did it work? If not, why?



Determine what changes you need to make to improve  
your solution, then make them. Retest.  
Did it work? If not, why?



Repeat this process as many times as necessary.



TEST

What now?



Once you are satisfied with your solution, answer the following questions:

Describe how your solution solves the challenge.

How does your final solution differ from your first design?  
What changes did you make?

What worked well and why?  
If you did this challenge again, what would you differently?

As an explorer, how would you use your solution in the field?  
Where would you go and for what purpose?

REFLECT

