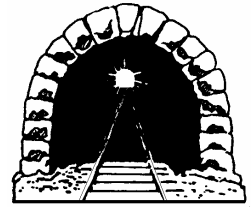


Build a Tunnel

Name: _____



1. Go to the website:

<http://www.pbs.org/wgbh/buildingbig/tunnel/basics.html>

2. Read the introduction

3. Read about **Soft Ground tunnels** then click on: **Check out the forces that act on soft-ground tunnels.**

➤ Draw and label a diagram of the forces acting on **soft-ground** tunnels. Explain the forces below.

4. Click on: ***Back to Tunnel Basics***

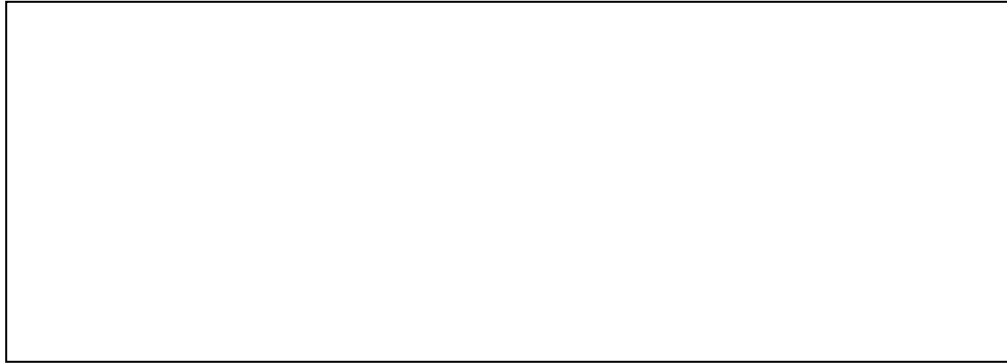
5. Read about **Rock Tunnels** then click on: ***Check out the forces that act on rock tunnels***

➤ Draw and label a diagram of the forces acting on a **rock tunnel**. Explain the forces below.

6. Click on: ***Back to Tunnel Basics***

7. Read about **Underwater Tunnels** then click on: ***Check out the forces that act on underwater tunnels***

➤ Draw and label a diagram of the forces acting on **underwater tunnels**. Explain the forces below.



8. Click on: ***Back to Tunnel Basics***

9. Click on: ***Tunnel Challenge***

10. Do all of the tunnel challenges

11. Log off the computer. If you have a laptop, return it to the cart and plug it in!

THE CHALLENGE!

Build a tunnel through the mountain. Your teams' goal is to communicate effectively so that you are able to dig a tunnel through the mountain from both sides. **TIP* Use the techniques presented in the video. Accurate measurements are necessary!*

Make sure that your tunnel does not collapse. Use the techniques that you have already learned about to prevent cave-ins.