

## Investigation 6: Extracting Minerals



operation, including the costs of the time spent mining, restoration of the surface area being mined, and proper disposal of the unwanted material removed from the ground. Your teacher will provide you with guidelines to help you to include these things in your model. Observe your egg and discuss its structure in your group.

Obtain an egg and a set of “mining tools.” Study them and generate your modeling ideas.

- a) Which part(s) of the egg could represent a mineral deposit? Why is that?
- b) What could the rest of the egg represent?
- c) Using your set of mining tools and the egg, how could you best model the mining process? (Be sure to think about the key mining issues as you discuss this.)
- d) What will you use to measure your success as a mining company when you are finished?

Working with the others in your class, and with your teacher, come up with a plan for how you could model the mining process with your egg and tools.

2. Put your mining plan into action. Be sure to keep a record of important data, like the time it takes to carry out the parts of the plan.

- a) Record all your data in your log.

3. To find out how successful you were in the mining process, revisit your original class plan. Put into action whatever steps are necessary to measure your success.

Compare notes with other groups in your class. How did the other miners do? Trade information about mining techniques and see how you could have improved your method.

Check to see if there is anything missing in your plan to model the mining process.

4. Look again at the issues and questions about mining that you considered in **Step 1**. Check to see which have been dealt with and answered by your model. Discuss these questions and any others you think are important:

- a) How did the egg mining illustrate the key issues in the mining for minerals?



Report any food allergies to your teacher before beginning this investigation. Do not eat any part of the foods being used in the investigation. Wash your hands after each part of this investigation. Clean all spills well.

