

<p>10th Grade</p>	<p>Thinking Like a 21st Century Scientist / Engineer: Laboratory Safety</p>	
<p>ADVANCED PREPARATION</p>	<ul style="list-style-type: none"> • Copies of " Science Lab Safety Contract" • 1 stopwatch or other timing device • Notepad and pencil for scorekeeping • Print safety rules and cut out slips of paper • Basket or other container for the slips • Copies of "Safety Charades" cut-outs/hand-outs 	
<p>ACTIVITES (3 days)</p>	<p>Objective: The objective of the following activities is to give students the opportunity read about appropriate behavior for a lab experience, discuss lab safety, and develop understandings of author's purpose, main idea, and details.</p> <p><i>What is the teacher doing?</i></p> <p>Lab Safety Contract (Day 1)</p> <ul style="list-style-type: none"> • Pass out copies of Lab Safety Contract • Read and discuss Lab Safety Contract with students • Direct students to have the contract signed by their parent/guardian and returned to the teacher. It is very important that students not actively participate in lab activities until the form has been signed, returned to the teacher, and held on file. <p>Lab Safety Jeopardy (Day 2)</p> <ul style="list-style-type: none"> • Facilitate the Lab Safety Jeopardy game. • Click Here to access the Jeopardy Game. • Click on the "slide show" button to begin. <p>Lab Safety Charades or Skits (Day 3)</p> <ul style="list-style-type: none"> • Handout the "Lab Safety Skits" handout • Pass out to groups one or more safety rules cut-outs. • Facilitate as students act out their lab safety rule. 	<p><i>What are the students doing?</i></p> <p>Lab Safety Contract (Day 1)</p> <ol style="list-style-type: none"> 1. Read the Lab Safety Contract and discuss why lab safety is important. 2. Students take the contract home so that it can be signed by a parent/guardian and returned to the teacher before participating in any laboratory experiences. <p>Lab Safety Jeopardy (Day 2) Students participate in playing Lab Safety Jeopardy.</p> <p>Lab Safety Charades or Skits (Day 3)</p> <ol style="list-style-type: none"> 1. Each group gets a chance to act out their lab safety rule while the other students guess which rule they are representing.

LAB SAFETY JEOPARDY - TEACHER PAGE

The Jeopardy Game can be accessed on-line. [Click here.](#)

1. Group students into groups of 3-4.
2. Decide which group will go first and have that group pick a category.
3. Click on the point value for that category and a question screen will come up.
4. Students will work in the group to determine an answer to the question. If the group gets it correct, they win the points. If the group gets it wrong, another team can answer the question correctly and win the points.
5. Once the question has been answered you can double check that they have answered it correctly by clicking on the house at the bottom of the page. Click on the house on the answer page to return to the game screen.
6. The next group will then pick a category and a question value.
7. The team with the most points at the end of the game wins.
8. Enjoy the game!!!

Safety Charades

(Teacher notes)



Equipment

- a stopwatch or other timing device
- a notepad and pencil for scorekeeping
- safety rules on slips of paper
- a basket or other container for the slips

Preparation

Divide the players into two teams, preferably of equal size. Members from each team will take turns being timer and scorekeeper.

To Play

Each round of the game proceeds as follows:

- A player from Team A draws a phrase slip from the basket. After he/she has had a short time to review the slip, the timekeeper for team B notes the time and tells the player to start. Team A then has three minutes to guess the phrase. If they figure it out, the timekeeper records how long it took. If they do not figure it out in three minutes, the timekeeper announces that the time is up, and records a time of three minutes.
- A player from Team B draws a phrase slip from the basket, and play proceeds as above.

Normally the game continues until every player has had a chance to "act out" a phrase or until the class is over. The score for each team is the total time that the team needed for all of the rounds. The team with the smallest score wins the game.

NOTE:

You can also have this be done as individuals rather than teams.

In this case have students draw a slip from the basket, give everyone five - ten minutes to come up with how they will act out the safety procedure.

Then have them write out how they are going to act out this safety rule. Take turns acting out the safety rules.

If students find some of the rules difficult to guess, have others in the class act out how they would have shown this rule.

Safety Charades

Avoid eating and drinking in lab.

Wear goggles when dealing with heat,
glass or chemicals.

Wear gloves when dealing with
chemicals.

Handle equipment carefully and
deliberately.

Keep your work area clean, organized
and free from unnecessary supplies and
papers.

Avoid eating and drinking in lab.

Avoid playing in lab

Safety Charades

Smell unknown substances by wafting fumes toward your nose while slowly bringing substance closer.

Wash hands after dealing with chemicals.

Avoid putting lab supplies in your mouth.

Immediately alert the instructor of an accident, no matter how minor the accident may seem

Allow instructor to clean up chemical spills.

Use sharp objects with extreme care.
Place objects on a suitable work surface for cutting.

Use lab materials as directed.

