

WASL---Washington Assessment of Student Learning

A Component of the Washington State Assessment Program

Science Grade 10 2002 Sample Mini WASL



Direction and Scenario Booklet

**TRAINING MATERIALS
NOT SECURED**

Note: Answers, Scoring Rubrics, and Sample Student Responses are located in the 2002 Science WASL Release Booklet. Scoring Student Responses on the Science WASL training packets are also available for each open-ended item.

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Science Assessment

Today you will take a mini-sample of the Grade 10 Science Washington Assessment of Student Learning.

Direction to the Student

For this test you will read a scenario from the Directions and Scenario Booklet and respond in the Student Response Booklet. Any writing in the Directions and Scenario Booklet will **not** be scored. Answer all the questions in your Student Response Booklet. Not all questions are related to a scenario. Questions not related to a scenario will be clearly marked

There are several different types of questions on this test:

1. Some questions will ask you to choose the best answer from among four answer choices. These questions are worth one point.
2. Some questions will ask you to write your answer in an answer box.
 - Some of these questions are short, one page for a response. They ask you to explain a scientific phenomenon, apply a scientific concept to a phenomenon, or provide rationale for conclusions using scientific evidence. You may use words, labeled pictures, and/or labeled diagrams in your response. These items are worth two points.
 - Others questions are longer, two pages for a response. These questions may ask you to design a scientific investigation, describe the structure and function of a system, describe the effects of a change in some part of a system, or propose scientific solutions to human problems. These items are worth four points.

Here are some important things to remember as you take this test:

1. Read each scenario carefully before answering the questions. Then read each question carefully before you chose a r write the answer you think is best.
2. If answer choices are given, choose the best answer by filling in the circle in front of your answer in the Student Response Booklet.
3. If an answer box is provided, write your answer neatly and clearly **inside** the box and show all your work in the Student Response Booklet. Cross out or erase any work you do not want as part of your answer. Do not use scratch paper.
4. Use only a **No. 2 pencil**, not a mechanical pencil or pen, to write your answers directly in your Student Response Booklet. If you do not have a No. 2 pencil, your teacher will give you one.
5. You should have plenty of time to finish every question on the test. If you do not know the answer to a question, go on to the next question. You can come back to that question later.
6. If you finish early, you may check your work on this test session **only**. Do **not** look at the question in another section.
7. When you reach the word **STOP** in your booklet, do not turn the page.

Acme Chemical

Directions: Use the following information to answer numbers 1 through 7 on pages 1 through 7 of your Student Response Booklet.







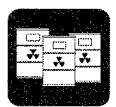


Acme chemical is a company that manufactures products such as cleansers and salts. Recently the company developed the insecticide XYZ that does not break down in the ecosystem. Displayed in the lab of Acme Chemical are Material Safety Data Sheets (MSDS) that describe the safe handling of various chemicals and their characteristics. The information for three chemicals is displayed in the Chart A below.

Chart A
Summary of MSDS Information

Chemical Name	Hydrochloric Acid	Sodium Hydroxide	Sodium Chloride
Chemical Formula	HCl	NaOH	NaCl
Other Names	Hydrogen Chloride	Caustic Soda, Sodium Hydrate, Lye	Table Salt, Halite
Incompatibles (Do not mix with...)	Strong bases	Strong acids	Lithium
Reactions	Metals	Metals	Metals
Melting Point	-74 °C	318 °C	801 °C
Boiling Point	110 °C	1,390 °C	1,413 °C
Physical Appearance	Clear, colorless liquid with acrid odor	White pellets or flakes, odorless	White granules or crystals, odorless
First Aid	Breathing: Remove to fresh air. Call doctor. Eyes: Flush with water for 15minutes. Swallowing: Do NOT induce vomiting. Drink water or milk. Call doctor.	Breathing: Remove to fresh air. Give Oxygen. Skin: Flush with water for 15 minutes Swallowing: Do NOT induce vomiting. Drink lots of water followed by diluted vinegar, fruit juices, or egg whites in water.	Breathing: Remove to fresh air. Skin: Wash with soap and water. Eyes: Flush with water for 15 minutes. Swallowing large amounts: Keep individual warm and quiet. Call doctor.

In working with these chemicals, Acme Chemical wants to ensure all products are labeled as to their danger. Below is Chart B: Safety Symbol Chart.

Chart B
Safety Symbol Chart

SAFETY SYMBOL	HAZARD	PRECAUTION	EMERGENCY ACTION
1. Disposal 	Special disposal required.	Dispose of waste as directed by supervisor.	Ask your supervisor how to dispose of laboratory materials.
2. Biohazard 	Organisms that can harm humans.	Avoid breathing in or skin contact with organisms. Wear gloves. Wash hands thoroughly.	Notify your supervisor if you suspect contact.
3. Sharp Objects 	Use of tools or glassware that can easily puncture or slice skin.	Practice common sense behavior and follow guidelines for use of the tool.	Go to your supervisor for first aid.
4. Fumes 	Potential danger from smelling fumes.	Must have good ventilation and never smell fumes directly.	Leave the area and notify your supervisor immediately.
5. Electrical 	Possible danger from electrical shock or burn.	Double-check setup with supervisor. Check condition of wires and apparatus.	Do not attempt to fix electrical problems. Notify your supervisor immediately.
6. Irritant 	Substances that can irritate skin or mucous membranes.	Wear dust mask or gloves. Practice extra care when handling these materials.	Go to your supervisor for first aid.
7. Chemical 	Substances (acids and bases) that can react with and destroy tissue and other materials.	Wear goggles and an apron.	Immediately flush with water and notify your supervisor.
8. Eye Safety 	This symbol appears when a danger to eyes exists.		
9. Animal Safety 	This symbol appears whenever live animals are studied and the safety of the animals and workers must be ensured.		

Now turn to page 1 of your Student Response Booklet and answer questions 1 through 7 and questions 8 through 13.