

Hand hygiene: see, scrub, explain

A standards-connected lesson that uses glow-germ lotion or glitter to make contamination visible, compares hand sanitizer with soap and water, and assesses both the performance and the explanation.

Grade band

High school Health Science Foundations, Anatomy and Physiology, Medical Assisting, or related clinical courses.

Time

80 to 90 minutes, with an optional second class period for reteaching and reassessment.

Essential question

Why does technique matter when we clean our hands?

Student product

A demonstrated handwashing routine, a comparison explanation, and a completed evidence sheet.

Standards and learning targets

Alignment	What students will do	Evidence
Florida example Health Science Core 10.01: Describe and practice procedures for infection prevention including hand washing skills.	Describe why hand hygiene interrupts the spread of contamination and practice the routine.	Performance demonstration and explanation.
Content-area literacy Use a procedural text to determine the meaning of domain-specific words and explain sequence.	Read the poster, identify words such as lather, friction, contamination, and infection prevention, and explain the order of steps.	Vocabulary turn-and-talk, annotated poster, exit response.
Professional practice Use accurate clinical language and follow safety expectations.	Compare soap and water with alcohol-based hand sanitizer and state when each method is appropriate.	Comparison response and teacher questioning.
Science reasoning Observe, compare, and use evidence.	Use the glow-germ or glitter demonstration to identify missed areas and connect coverage to technique.	Observation record and evidence-based explanation.

Important planning note

The Florida wording is an example for alignment. Replace it with the current standard or benchmark for your state, district, course, or program before teaching.

Plan the learning

The lesson is intentionally designed so the standard appears in the target, activity, language work, and assessment.

Learning targets

- [] I can explain how hand hygiene helps interrupt the spread of contamination.
- [] I can follow the complete handwashing sequence and cover all hand surfaces.
- [] I can compare soap and water with alcohol-based hand sanitizer.
- [] I can use clinical vocabulary to explain what I observed and why technique matters.

Key vocabulary

hand hygiene, contamination, infection prevention, lather, friction, rinse, visibly soiled, alcohol-based hand sanitizer, coverage, transmission

Materials and preparation

Teacher materials

Handwashing poster, current standard or benchmark, timer, projector or document camera, glow-germ lotion and UV light or classroom-safe glitter, soap, running water, paper towels, and alcohol-based hand sanitizer with at least 60% alcohol.

Student materials

Evidence sheet, pencil, vocabulary support, partner checklist, and optional gloves for a separate contamination simulation if appropriate for the course.

Before class

Review allergies and accommodations, set a no-touch area for materials, place sanitizer away from heat or flames, test the glow-germ activity, and decide how students will rotate through the sink.

Safety

Do not use actual microbes. Follow product labels. Do not place glow-germ products, glitter, soap, or sanitizer near eyes or mouths. Offer observation or alternate roles for students who cannot participate at the sink.

Access and extension

Use a smaller step sequence, picture cues, partner modeling, speech-to-text, or an alternate observation role when needed. Extend advanced learners by having them teach a patient-friendly explanation, compare two clinical situations, or revise the poster for a specific audience.

Lesson sequence

1. Launch 5 minutes	Ask students to predict where a small amount of glow-germ lotion or glitter could travel during a normal day in a clinical classroom.
2. Unpack 10 minutes	Display the standard. Circle the action word, name the content, identify the language students need, and preview the performance evidence.
3. Read and model 15 minutes	Read the poster together. Model wet, apply, palm to palm, backs of hands, between fingers, backs of fingers, thumbs, fingertips, wrists, rinse, dry, and faucet handling.
4. Investigate 15 minutes	Students use glow-germ lotion or glitter, complete a brief activity, inspect missed areas, and record what the evidence shows.
5. Compare 15 minutes	Students compare soap and water with sanitizer. Emphasize that soap and water are best in most situations and when hands are visibly dirty. Sanitizer is useful when soap and water are not readily available and hands are not visibly soiled.
6. Practice and assess 20 minutes	Students perform the routine with a partner checklist. The teacher completes the summative performance rubric and collects the written explanation.



Visual anchors: procedure, materials, and evidence.

Teach, question, and look for evidence

Use short questions throughout the lesson so students connect the procedure to the reason behind it.

Teacher move	Student action	Look for
Ask: Where could contamination hide if a person only rubs the palms?	Point to the backs of hands, between fingers, thumbs, fingertips, and wrists.	Students use specific vocabulary rather than saying only “the germs.”
Model the 20-second scrub with a timer or a school-appropriate counting routine.	Practice the sequence without rushing and keep hands moving across all surfaces.	Coverage, friction, sequence, and safe water use.
Ask: What did the glow-germ or glitter show us? What did it not show us?	Describe evidence, identify missed areas, and avoid claiming that the demonstration measures actual pathogens.	Students distinguish a classroom model from direct measurement of infection.
Present two situations: visibly soiled hands and no sink available.	Choose soap and water or sanitizer and justify the choice.	Students state that sanitizer should contain at least 60% alcohol and be rubbed over all surfaces until dry when used.
Prompt a patient education explanation: How would you teach this without shaming someone?	Use respectful, clear language and explain the reason for the steps.	Professional tone and accurate communication.

Formative assessment

Collect evidence during the prediction, vocabulary discussion, glow-germ or glitter observation, comparison talk, and partner practice. Use the questions above to reteach immediately. A student can demonstrate the steps accurately and still need support explaining the reason, so record both parts.

Student	Vocabulary and reasoning	Procedure practice	Next step
_____	[] secure [] developing [] reteach	[] secure [] developing [] reteach	_____
_____	[] secure [] developing [] reteach	[] secure [] developing [] reteach	_____
_____	[] secure [] developing [] reteach	[] secure [] developing [] reteach	_____
_____	[] secure [] developing [] reteach	[] secure [] developing [] reteach	_____
_____	[] secure [] developing [] reteach	[] secure [] developing [] reteach	_____

Summative assessment and student evidence

Use the performance rubric after students have practiced. Score the demonstration and the written or spoken explanation together so the assessment matches all of the lesson targets.

Criteria	4 Consistent	3 Ready	2 Developing	1 Beginning
Sequence and duration	Completes the sequence accurately and scrubs for about 20 seconds.	Completes the sequence with one prompt or minor omission.	Needs several prompts or rushes the scrub.	Cannot yet complete the sequence safely.
Coverage and technique	Covers palms, backs, between fingers, backs of fingers, thumbs, fingertips, wrists, rinse, dry, and faucet handling.	Covers most surfaces and corrects a missed area after feedback.	Misses multiple areas or needs direct modeling.	Uses unsafe or incomplete technique.
Comparison and reasoning	Accurately explains when soap and water or sanitizer is appropriate and uses evidence from the investigation.	Makes an accurate comparison with one missing detail.	Names a difference but cannot yet justify the choice.	Gives an inaccurate or incomplete comparison.
Clinical language	Uses precise terms such as contamination, lather, friction, coverage, and infection prevention.	Uses several accurate terms with minor imprecision.	Uses everyday language and needs vocabulary prompts.	Cannot yet explain the routine using the target vocabulary.

Student evidence sheet

Name: _____	Date: _____
My prediction Where might the glow-germ or glitter travel? _____ _____ _____ _____	What I observed Which areas were easiest or hardest to cover? _____ _____ _____ _____
Compare the methods Soap and water are best when _____ Sanitizer is useful when _____ One important difference is _____	Explain the evidence The demonstration showed _____ It did not show _____ Technique matters because _____



CLEAN HANDS *Save Lives!*

THE MOST IMPORTANT THING YOU CAN DO FOR YOUR PATIENTS AND YOURSELF.

WHEN TO WASH

Always clean your hands...

- ✓ Before touching a patient
- ✓ Before clean/aseptic procedures
- ✓ After body fluid exposure risk
- ✓ After touching a patient
- ✓ After touching patient surroundings
- ✓ After removing gloves
- ✓ When hands are visibly dirty
- ✓ Before eating or drinking
- ✓ Before and after using the restroom

HAND HYGIENE OPTIONS



ALCOHOL-BASED HAND RUB

- ✓ Preferred for most clinical situations
- ✓ Use when hands are NOT visibly soiled



SOAP AND WATER

- ✓ When hands are visibly dirty or soiled with blood or body fluids
- ✓ After caring for C. difficile or during norovirus outbreaks

REMEMBER

- ✓ Keep nails short & clean
- ✓ No artificial nails or nail polish
- ✓ Remove jewelry & watches
- ✓ Cover cuts/sores with waterproof bandage
- ✓ Moisturize to prevent dry, cracked skin

STOP THE SPREAD!

- ✗ Do NOT wear gloves instead of washing hands.
- ✗ Do NOT touch your face, hair, or body during patient care.
- ✗ Do NOT recap used needles.
- ✗ Do NOT wear the same gloves from patient to patient.

WHEN IN DOUBT – WASH!

HOW TO WASH YOUR HANDS

Wash with **SOAP & WATER** for at least **20 SECONDS**



1 WET Wet hands with clean, running water (warm or cold).	2 APPLY Apply soap to cover all hand surfaces.	3 PALM TO PALM Rub hands palm to palm.	4 BACK OF HANDS Rub the back of each hand with the palm of the other hand.	5 BETWEEN FINGERS Rub between fingers.
6 BACK OF FINGERS Rub the back of fingers to opposing palms with fingers interlocked.	7 THUMBS Rub each thumb clapsed in the opposite hand.	8 FINGER TIPS Rub fingertips in opposing palm in a circular motion.	9 WRISTS Rub each wrist with the opposite hand.	10 RINSE Rinse hands well under clean, running water.
11 DRY DRY DRY Dry hands thoroughly with a clean single-use towel.	12 TURN OFF FAUCET Use towel to turn off faucet.	13 YOU'RE DONE! Your hands are clean and safe.		

USE ALCOHOL-BASED HAND RUB WHEN HANDS ARE NOT VISIBLY SOILED

Rub for **20 SECONDS** until hands are dry

1 APPLY Apply product to palm of one hand.	2 PALM TO PALM Rub hands palm to palm.	3 BACK OF HANDS Rub the back of each hand with the palm of the other hand.	4 BETWEEN FINGERS Rub between fingers.	5 THUMBS Rub each thumb clapsed in the opposite hand.	6 FINGER TIPS Rub fingertips in opposing palm in a circular motion until hands are dry.
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HAND HYGIENE PROTECTS



YOUR PATIENTS
Prevents infections and complications



YOURSELF
Protects you from germs and illness



EVERYONE
Creates a safer healthcare environment

HOW LONG IS 20 SECONDS?

Sing the "Happy Birthday" song from beginning to end **TWICE** OR count slowly to 20.



Clean Hands. Safe Patients. Professional Pride.



SEBRING HIGH SCHOOL

CCMA

WE CARE. WE SERVE. WE MAKE A DIFFERENCE.



Teacher reference note

Use the poster as the visual anchor for the lesson. The poster includes when to wash, soap and water steps, sanitizer steps, safety reminders, and a comparison of the two methods. Review the poster before use and follow your school policies for products, student accommodations, and sink access.

References used for planning

Florida Department of Education. Health Science curriculum framework, 2025 to 2026. Health Science Core 10.01: Describe and practice procedures for infection prevention including hand washing skills. <https://www.fldoe.org/core/fileparse.php/20833/urlt/12-11.pdf>

Centers for Disease Control and Prevention. About handwashing. <https://www.cdc.gov/handwashing/>

Centers for Disease Control and Prevention. Hand sanitizer guidelines and recommendations. <https://www.cdc.gov/clean-hands/about/hand-sanitizer.html>

Centers for Disease Control and Prevention. Hand hygiene frequently asked questions. <https://www.cdc.gov/clean-hands/faq/index.html>

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