

Acne

GRADE 8 & UP READING

Improve students'
literacy skills

Sub Plan

Science
Applicability



Reading Comment



★★★★★ Extremely satisfied - Great resource to work on student reading comprehension and it tied into the topic I was teaching. My students have been struggling with reading and I've been incorporating more reading into my lessons. Thank you for the resource.



SCROLL
to take a look inside!

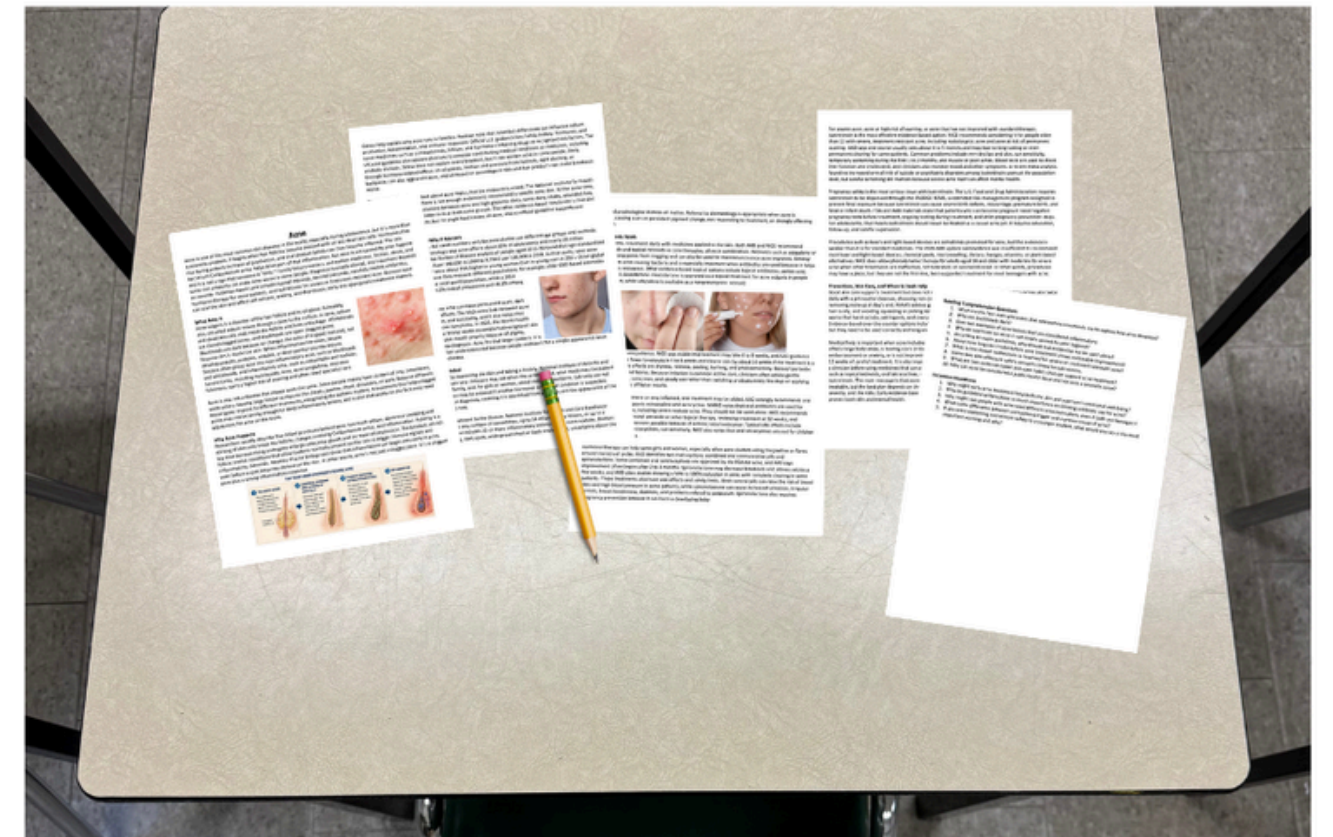


THE PROBLEMS YOU FACE

- **Limited time to teach scientific literacy and strengthen students' reading and analysis skills.**
- **Need meaningful extension activities to engage fast-moving learners.**
- **Difficulty creating effective last-minute sub plans that still support student learning.**

NO-PREP - PRINT/UPLOAD

- **CLASSROOM READY - No Prep, Ready-to-Use:** Print or assign digitally with Google Docs, Microsoft Word, and PDF formats for flexible classroom use
- **Questions and Answer Key**
- **Includes Varied Question Types:** Knowledge, thinking, connecting, application, and open-ended questions.



What Will Your Students Learn?

READING COMPREHENSION ARTICLE & QUESTION BUNDLE

Article with
Comprehension
Questions

Grade 8 and Up

Print & Digital

- What acne is
- How acne develops
- Sebum, clogged pores, and inflammation
- Blackheads, whiteheads, papules, pustules, nodules, and cyst-like lesions
- Hormones, genetics, stress, friction, and skin products
- How common acne is and why it matters
- **Diagnosis and severity grading**
- Topical treatments, oral antibiotics, hormonal therapy, and isotretinoin
- **Prevention, skin care, and when to seek medical help**
- How acne can affect scarring, self-esteem, anxiety, and depression

Reading Comprehension Questions

1. What are the four main processes that researchers commonly use to explain how acne develops?
2. Why are blackheads dark?
3. Give two examples of acne lesions that are considered inflammatory.
4. Why do scientists say acne is not simply caused by poor hygiene?
5. According to the article, why should oral antibiotics not be used alone?
6. According to the article, why is isotretinoin considered a "game-changer" for acne treatment?
7. What are the four linked processes behind acne?
8. Name two factors that can trigger inflammation in the skin.
9. What are the four main processes that researchers commonly use to explain how acne develops?
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Extension Questions

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Acne

Acne is one of the most common skin diseases in the world, especially during adolescence, but it is more than a cosmetic problem. It begins when hair follicles become blocked with oil and dead skin cells. Hormones that rise during puberty increase oil production, and that blocked follicle can then become inflamed. The skin bacterium *Cutibacterium acnes* helps drive part of that inflammation, but acne is not caused by poor hygiene and it is not a sign that someone is "dirty." Family history matters, and certain medicines, friction, stress, and some skin products can make acne worse in some people. Diagnosis is usually clinical, and treatment depends on severity. Evidence-based care includes topical retinoids, benzoyl peroxide, carefully limited antibiotics, and hormonal therapy for some patients, and isotretinoin for severe or treatment-resistant acne. Because acne can scar the skin and affect self-esteem, anxiety, and depression, early and appropriate treatment matters.

What Acne Is

Acne vulgaris is a disorder of the hair follicle and its oil gland. In healthy skin, oil called sebum moves through a pore to the surface. In acne, sebum and dead skin cells stick inside the follicle and form a blockage. Whiteheads are closed clogged pores, and blackheads are open clogged pores. Blackheads are dark because air changes the color of trapped material, not because dirt is inside the skin. When inflammation increases, people develop papules, pustules, nodules, or deep painful cyst-like lesions. Doctors often group acne into non-inflammatory acne, such as blackheads and whiteheads, and inflammatory acne, such as red pimples and nodules. Severe forms, including nodulocystic acne, acne conglobata, and acne fulminans, carry a higher risk of scarring and often need specialist care.



Acne is also not a disease that always looks the same. Some people mainly have clusters of tiny comedones, while others develop large tender bumps on the cheeks, jawline, chest, shoulders, or back. Because different lesion types respond to different treatments, recognizing the pattern matters. A treatment that helps clogged pores may not be strong enough for deep inflammatory lesions, and a plan that works on the face may need adjustment for acne on the trunk.

Why Acne Happens

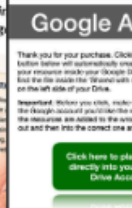
Researchers usually describe four linked processes behind acne: too much sebum, abnormal shedding and sticking of skin cells inside the follicle, changes involving *Cutibacterium acnes*, and inflammation. Puberty is a key time because rising androgens enlarge sebaceous glands and increase oil production. The blocked, oil-rich follicle creates conditions that allow bacteria normally present on the skin to trigger inflammation. Reviews of acne biology also show that inflammation can begin even before a spot becomes obvious on the skin. In a clogged pore plus a spot becomes obvious on the skin. In a clogged pore plus a spot becomes obvious on the skin.

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Your Reading

Acne

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Genes help explain why acne runs in families. Reviews note that inherited differences can influence sebum production, keratinization, and immune responses. Official U.S. guidance lists family history, hormones, and some medicines such as corticosteroids, lithium, and hormone-containing drugs as recognized risk factors. The UK acne guideline also advises clinicians to consider contributing medical conditions or medicines, including anabolic steroids. Stress does not explain every breakout, but it can worsen acne in some people, likely through hormone-related effects on oil glands. Friction and pressure from helmets, tight clothing, or backpacks can also aggravate acne, and oil-based or comedogenic skin and hair products can make breakouts worse.

Diet is one of the most talked-about acne topics, but the evidence is mixed. The National Institute for Health and Care Excellence says there is not enough evidence to recommend a specific acne diet. At the same time, review articles report associations between acne and high-glycemic diets, some dairy intake, saturated fats, and Western-style eating patterns in at least some groups. The safest evidence-based conclusion is that diet may matter for some people, but no single food causes all acne, and no official guideline supports one universal “acne diet.”

How Common Acne Is and Why It Matters

Acne is extremely common, but exact numbers vary because studies use different age groups and methods. American Academy of Dermatology says acne affects about 85% of adolescents and nearly 50 million Americans each year. A Global Burden of Disease analysis of people aged 10 to 24 found that age-standardized prevalence rose from 8,563.4 per 100,000 in 1990 to 9,790.5 per 100,000 in 2021. In that study, rates were highest in ages 15 to 19 and were about 25% higher in young women than in young men in 2021. Other global estimates are different because they measure different populations; for example, older GBD-based estimates put acne at about 9.4% of the total world population, while a 2024 worldwide study reported 20.5% overall prevalence and 28.3% among people aged 16 to 24.



These numbers matter because acne can leave permanent scars, dark marks, and strong emotional effects. The AAD notes links between acne and social isolation, depression, and suicidality, and it also notes that treatment can reduce depressive symptoms. In 2025, the World Health Organization reported that the World Health Assembly had recognized skin diseases broadly as a global public-health priority because of stigma, mental-health effects, and underdiagnosis. Acne fits that larger pattern: it is common, highly visible, and often underestimated because people mistake it for a simple appearance issue instead of a real inflammatory disease.

How Acne Is Diagnosed and Graded

Doctors usually diagnose acne by examining the skin and taking a history. National Institute of Arthritis and Musculoskeletal and Skin Diseases says clinicians may ask when the acne started, what medicines the patient uses, whether acne runs in the family, and, for girls or women, about menstrual patterns. Lab tests are not needed for most people, but they may be ordered if another hormonal or medical condition is suspected. Acne is therefore mainly a clinical diagnosis, meaning it is identified from the story and the appearance of the skin rather than from a single lab test.

Severity grading helps match treatment to the disease. National Institute for Health and Care Excellence defines mild to moderate acne as any number of comedones, up to 34 inflammatory lesions, or up to 2 nodules. Moderate to severe acne includes 35 or more inflammatory lesions or 3 or more nodules. Doctors also look beyond counts. Scarring, dark spots, widespread chest or back involvement, uncertainty about the

diagnosis, and psychological distress all matter. Referral to dermatology is appropriate when acne is nodulocystic, causing scars or persistent pigment change, not responding to treatment, or strongly affecting mental health.

What Treatments Work

For many patients, treatment starts with medicines applied to the skin. Both AAD and NICE recommend benzoyl peroxide and topical retinoids as core therapies, often in combination. Retinoids such as adapalene or tretinoin help keep pores from clogging and can also be used for maintenance once acne improves. Benzoyl peroxide reduces acne-causing bacteria and is especially important when antibiotics are used because it helps reduce antibiotic resistance. Other evidence-based topical options include topical antibiotics, azelaic acid, salicylic acid, and clascoterone. Clascoterone is approved as a topical treatment for acne vulgaris in people aged 12 and older, while adapalene is available as a nonprescription retinoid.



These medicines require patience. NICE says visible improvement may take 6 to 8 weeks, and AAD guidance says many people see fewer breakouts in 4 to 8 weeks and clearer skin by about 16 weeks if the treatment is a good fit. Common side effects are dryness, redness, peeling, burning, and photosensitivity. Benzoyl peroxide can also bleach hair and fabrics. Because irritation is common at the start, clinicians often advise gentle cleansing, moisturizer, sunscreen, and steady use rather than switching products every few days or applying large amounts in hopes of faster results.

For moderate to severe or very inflamed acne, oral treatment may be added. AAD strongly recommends oral tetracycline and also supports minocycline and sarecycline. NIAMS notes that oral antibiotics are used for moderate to severe acne, including severe nodular acne. They should not be used alone. NICE recommends combining them with benzoyl peroxide or other topical therapy, reviewing treatment at 12 weeks, and avoiding long courses whenever possible because of antimicrobial resistance. Typical side effects include stomach upset and, for tetracyclines, sun sensitivity. NICE also notes that oral tetracyclines are not for children under 12 or for pregnancy.

Hormonal therapy can help some girls and women, especially when acne clusters along the jawline or flares around menstrual cycles. AAD identifies two main options: combined oral contraceptive pills and spironolactone. Some combined oral contraceptives are approved by the FDA for acne, and AAD says improvement often begins after 2 to 3 months. Spironolactone may decrease breakouts and oiliness within a few weeks, and AAD cites studies showing a 50% to 100% reduction in acne, with complete clearing in some patients. These treatments also have side effects and safety limits. Birth-control pills can raise the risk of blood clots and high blood pressure in some patients, while spironolactone can cause increased urination, irregular periods, breast tenderness, dizziness, and problems related to potassium. Spironolactone also requires pregnancy prevention because it can harm a developing baby.

For severe acne, acne at high risk of scarring, or acne that has not improved with standard therapy, isotretinoin is the most effective evidence-based option. NICE recommends considering it for people under 12 with severe, treatment-resistant acne, including nodulocystic acne and acne at risk of permanent scarring. AAD says one course usually lasts about 4 to 5 months and may lead to long-lasting or permanent clearing for some patients. Common problems include very dry lips and skin, sun sensitivity, temporary worsening during the first 1 to 2 months, and muscle or joint aches. Blood tests are used to monitor liver function and cholesterol, and clinicians also monitor mood and other symptoms. A recent review found no increased overall risk of suicide or psychiatric disorders among isotretinoin users at that level, but careful screening still matters because severe acne itself can affect mental health.

Pregnancy safety is the most serious issue with isotretinoin. The U.S. Food and Drug Administration advises isotretinoin to be dispensed through the iPLEDGE REMS, a restricted risk-management program to prevent fetal exposure because isotretinoin can cause severe birth defects, miscarriage, preterm fetal or infant death. FDA and AAD materials state that patients who can become pregnant need pregnancy tests before treatment, ongoing testing during treatment, and strict pregnancy-prevention for adolescents, that means isotretinoin should never be treated as a casual acne pill. It requires follow-up, and careful supervision.

Procedures such as lasers and light-based devices are sometimes promoted for acne, but the evidence is weaker than it is for standard medicines. The 2024 AAD update said evidence was insufficient to recommend most laser and light-based devices, chemical peels, microneedling, dietary changes, vitamin supplements, or other treatments are ineffective, not tolerated, or contraindicated. In other words, procedures may have a place, but they are not the first-line, best-supported treatment for most teenagers with acne.

Prevention, Skin Care, and When to Seek Help

Good skin care supports treatment but does not replace it. NICE recommends washing acne-prone skin daily with a pH-neutral cleanser, choosing non-comedogenic moisturizers, sunscreens, and makeup, and removing makeup at day's end. NIAMS advises gentle cleansing after heavy exercise, regular showering, and avoiding squeezing or picking lesions because it can cause scars or dark blotches. Warnings about harsh scrubs, astringents, and overuse of products can irritate skin and make acne worse. Evidence-based over-the-counter options include benzoyl peroxide, adapalene, salicylic acid, and retinoids, but they need to be used correctly and long enough to work.

Medical help is important when acne includes nodules or cysts, affects large body areas, is leaving scars or dark spots, causes embarrassment or anxiety, or is not improving after about 8 to 12 weeks of careful treatment. It is also important to talk with a clinician before using medicines that can affect pregnancy, such as topical retinoids, oral tetracyclines, spironolactone, or isotretinoin. The main message is that acne is common and treatable, but the best plan depends on the person, the severity, and the risks. Early evidence-based treatment can protect both skin and mental health.



Reading Comprehension Questions

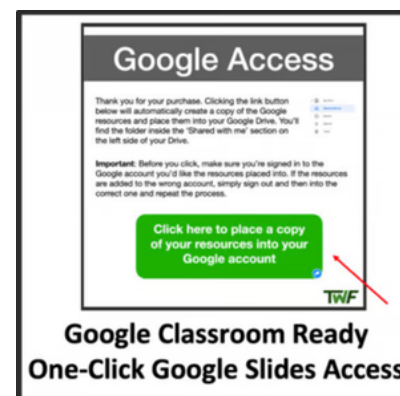
1. What are the four main processes that researchers commonly use to explain how acne develops?
2. Why are blackheads dark?
3. Give two examples of acne lesions that are considered inflammatory.
4. Why do scientists say acne is not simply caused by poor hygiene?
5. According to major guidelines, why should oral antibiotics not be used alone?
6. About how long can it take before acne treatment shows noticeable improvement?
7. What is one reason isotretinoin is reserved for severe or treatment-resistant acne?
8. Name two side effects or safety concerns linked to isotretinoin.
9. What are two evidence-based skin-care habits that can support acne treatment?
10. Why can acne be considered a public-health issue and not only a cosmetic issue?

Extension Questions

1. Why might early acne treatment help both the skin and a person's emotional well-being?
2. Why do guideline writers place so much importance on limiting antibiotic use for acne?
3. Why might two people with acne need different treatment plans, even if both are teenagers?
4. What is the difference between a treatment trigger and a proven cause of acne?
5. If you were explaining isotretinoin safety to a younger student, what would you say is the most important warning and why?

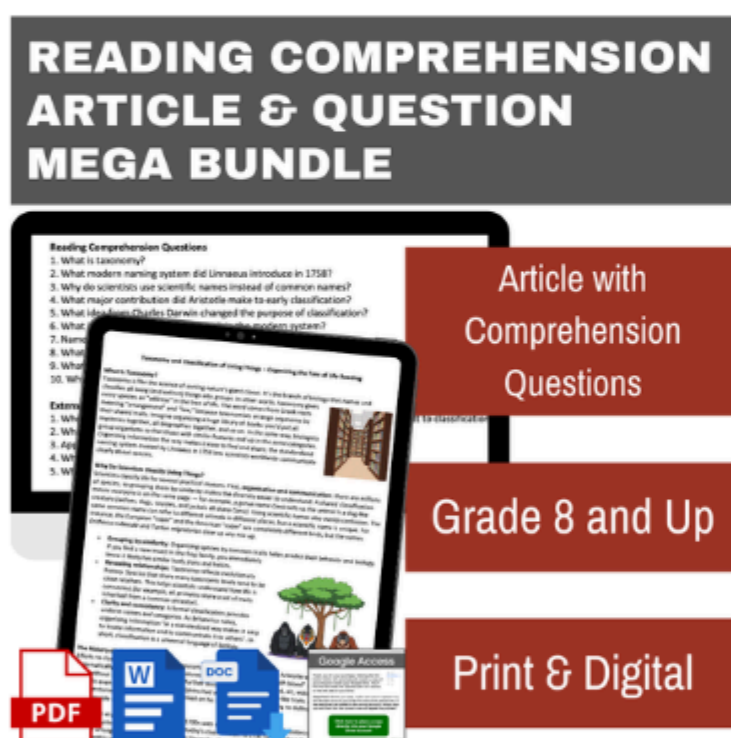
Full Answer Key

Comprehension and Extension Questions



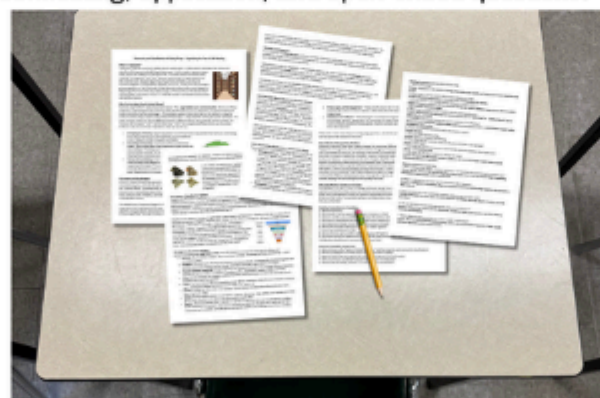
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★★★★★ Extremely satisfied - It is a good supplemental activity either for review and at the same time introducing some concept. I also use this for sub plan. It is well presented, organized and interesting.

★★★★★ Extremely satisfied - This a great resource. I used this for a sub plan. It was fun and engaging for my students.

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