

Provides Functional Health Knowledge That Is Basic and Accurate and That Directly Contributes to Health-Promoting Decisions and Behaviors

Description: This characteristic focuses on providing functional health knowledge (*i.e., need-to-know information*) to help students establish, manage, and maintain healthy decisions and behaviors.¹ Functional health knowledge is accurate, reliable, and credible information students can use to

- Assess risk,
- Clarify attitudes and beliefs,
- Correct misperceptions about social norms,
- Identify ways to avoid or minimize risky situations,
- Examine internal and external influences,
- Select valid and reliable resources,
- Make behaviorally relevant decisions,
- Set healthy goals,
- Advocate for health, and
- Build personal and social competence for engaging in healthy behaviors.



Health instruction that has little influence on health beliefs, health skills, and behaviors is nonfunctional (*nice-to-know information*). Sometimes students find nonfunctional health knowledge interesting (e.g., the large intestines are about 5 feet long). However, typically there is not adequate time allotted to teach both functional health knowledge (*need to know*) and nonfunctional health knowledge (*nice to know*). Therefore, it is critical for health curriculum coordinators and health teachers to focus on functional health knowledge that supports the adoption and maintenance of select healthy behavioral outcomes (HBOs) ([HECAT Appendix 3](#)).

Resources that can help teachers determine functional information from nonfunctional information include the following:

- Seeking information from accurate, reliable, and credible sources about specific HBOs and topics
- Utilizing local/state/national data describing issues related to student health
- Using state/district standards, frameworks, or requirements that dictate content
- Aligning lessons with district/school scope and sequence, curriculum maps, or pacing guides
- Reviewing Health Education Curriculum Analysis Tool (HECAT) health-related modules that outline relevant knowledge expectations
- Determining available instructional time allocated for health education and then prioritizing the functional health information that aligns with the selected HBOs

¹ Centers for Disease Control and Prevention, *Health Education Curriculum Analysis Tool* (Atlanta, GA: CDC, 2021).

Grades K–2 Example

Example 1

For this example, the unit that is being taught is Personal Health and Wellness, and the HBO for the lesson is *PHW-1: Practice appropriate hygiene habits* ([HECAT Appendix 3](#)). The specific focus of this hygiene habit is toothbrushing.

1. When planning a lesson that focuses on toothbrushing, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional knowledge that can be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include dental anatomy (i.e., specific names and locations of teeth, such as incisors at the front of the mouth).
 - b. Examples of functional health knowledge that *should be taught* include the function of healthy teeth (e.g., breaking down food, being able to clearly say words when talking), the steps of brushing one's teeth, how often and when children should brush their teeth, and ways to keep their teeth safe.
 - c. Use the Centers for Disease Control and Prevention's (CDC's) HECAT Personal Health and Wellness module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Personal Health and Wellness](#)).
2. The teacher first posts a picture of a child the students' age brushing their teeth and introduces the focus of this lesson on toothbrushing as a hygiene habit related to the HBO. This focus will enable students to have a clear understanding of the outcomes and expectations of this lesson.
3. The teacher then asks the students to explain why they need healthy teeth and discusses their responses with the class.
4. The teacher then asks the students to identify ways to keep their teeth safe and discusses their responses.
5. The students then complete a worksheet with pictures related to ways to keep their teeth safe.
6. The teacher then identifies the steps of toothbrushing.
7. The teacher then demonstrates the steps of toothbrushing.
8. The teacher then walks the students through the steps of toothbrushing (guided practice), and then the students practice toothbrushing.
9. The teacher then discusses with the students how often and when they should brush their teeth.
10. The teacher distributes a worksheet for students to share with their parents or guardians related to oral hygiene.



Example 2

For this example, the unit that is being taught is Promoting Safety, and the HBO for the lesson is *S-4: Apply safety rules and procedures to avoid risky behaviors and injury* ([HECAT Appendix 3](#)). The specific focus of this lesson is on safety rules and procedures to safely walk along and cross streets.

1. When planning a lesson that focuses on safety rules and procedures to safely cross streets, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include fear-laden information related to pedestrian injuries and deaths, especially pedestrian injuries and deaths among children, and unusual situations related to pedestrian injuries and deaths.
 - b. Examples of functional health knowledge that *should be taught* include safe and unsafe situations and people related to walking near and crossing streets, risks associated with not following pedestrian safety rules and procedures, pedestrian safety rules and procedures including people and signs that help us safely cross a street, steps for safely crossing a street, and the benefits of following pedestrian safety rules and procedures.
 - c. Use the CDC's HECAT Safety module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Safety](#)).
2. The teacher shows pictures of children safely walking near and crossing the streets to introduce the focus of this lesson on applying rules and procedures for pedestrian safety. This focus will enable students to have a clear understanding of the outcomes and expectations of this lesson.
3. The teacher provides pictures of situations in which children need to safely cross a street. The teacher asks the students to explain the situations and to identify safety rules for walking near or crossing the street.
4. The teacher then shows pictures of crosswalks, stop signs, stoplights, and crossing guards and asks the students to explain how each example helps them safely cross the street.
5. The teacher ends the lesson by asking students how they can use what they learned to help them safely cross the street.



Grades 3–5 Examples

Example 1

For this example, the unit that is being taught is Promoting Food and Nutrition, and the specific focus of this lesson is choosing healthy snacks. The HBOs for this lesson on choosing healthy snacks include *FN-3: Eat lots of fruits and vegetables*, *FN-8: Limit foods high in added sugars, saturated fats, trans fats, and sodium*, and *FN-11: Choose and enjoy nutrient-dense foods and beverages when dining* ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on choosing healthy snacks, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include an overemphasis on the specific nutritional content of a wide variety of “junk foods,” the history of the production and manufacturing of food, and statistics related to the sale and consumption of “junk food.”
 - b. Examples of functional health knowledge that *should be taught* include the benefits of eating healthy snacks and limiting the consumption of snacks high in fat, added sugars, and sodium; qualities of nutrient-dense snacks (e.g., tastes good; not salty, greasy, or sugary; contains key nutrients); examples of nutrient-dense foods and beverages (e.g., fruits and vegetables, high-fiber foods, foods/beverages low in added sugars).
 - c. Use the CDC’s HECAT Food and Nutrition module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Food and Nutrition](#)).
2. The teacher first provides a list of snacks and introduces the focus of this lesson on choosing healthy snacks as related to the HBOs. This focus will enable students to have a clear understanding of the expected outcomes of this lesson.
3. The teacher then asks the students to work independently to determine snacks on the list that are healthy snacks and snacks that are less healthy snacks. The students are then asked to compare their answers with a partner. The teacher then reviews the list with the class.
4. The students then participate in a “think-pair-share” in which they identify characteristics of healthy snacks, compare their answers with another pair, and then write their responses on the classroom whiteboard. The teacher and students then compare the results, and the teacher clarifies the responses to ensure that the students have correctly identified the characteristics of healthy snacks (e.g., low fat, low added sugar, low sodium; higher in nutrient density).
5. The teacher assesses the lesson with an exit ticket in which the students identify their favorite healthy snacks and the characteristics of healthy snacks. Each student then shares their responses in a whip-around (e.g., calling on every student in a systematic way).



Example 2

For this example, the unit that is being taught is Promoting Physical Activity, and the HBO for the lesson is PA-1: *Engage in moderate to vigorous physical activity for at least 60 minutes every day* ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on promoting physical activity, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional health knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include memorizing the bones and muscles in the body.
 - b. Examples of functional health knowledge that *should be taught* include defining what it means to be physically active, identifying different types of physical activities, and identifying ways to increase daily physical activity.
 - c. Use the CDC's HECAT Physical Activity module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Physical Activity](#)).
2. The teacher posts and introduces the HBO of the lesson so that there is a clear understanding of the expected outcome for the lesson.
3. On the board, the teacher posts numerous pictures of young people and families engaging in a physical activity. Examples may include riding bicycles, jogging, hiking, playing, walking, or lifting weights. The teacher poses a question of what these pictures all have in common. How are they different (e.g., being physically active, having fun, using more energy for some activities, etc.)?
4. The teacher asks students to write down what it means to be physically active and why it is important to their health. Students share responses, and the teacher processes their answers.
5. The teacher then discusses how being physically active directly affects one's overall fitness, which is the body's ability to function at its best.
6. The teacher then explains that young people should engage in 60 minutes or more of moderate to vigorous physical activity a day, and that most of that activity should be aerobic.
7. The teacher explains aerobic activity addresses the cardiorespiratory (heart and lungs) system. The teacher asks students why aerobic exercise is important to overall health. The teacher then asks for examples of activities that would be considered aerobic (e.g., running, swimming, in-line skating, bike riding) and asks which muscle groups are most often used in aerobic activities (e.g., arms, legs, heart).
8. The teacher takes the students on a 10-minute power walk around the outside of the school and demonstrates what moderate- and vigorous-intensity walking feels like using a scale of 0–10 (0 is not moving, and 10 is maximum activity). Moderate intensity is 5–7, and vigorous intensity is 8–10.
9. The students reflect on their experience by completing the following exit-ticket questions:
 - a. During our power, walk I felt...
 - b. My favorite aerobic activity is...
 - c. One aerobic activity I would like to try is...



Grades 6–8 Examples

Example 1

For this example, the unit that is being taught is Promoting Mental and Emotional Health, and the HBO for the lesson is *MEH-6: Get help for troublesome thoughts, feelings, or actions for oneself and others* ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on promoting mental and emotional health, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional health knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include having students conduct in depth research on specific mental health disorders and in depth discussions of treatments for mental health disorders.
 - b. Examples of functional health knowledge that *should be taught* include identification of thoughts, feelings, or actions that might be troublesome; healthy ways to deal with troublesome thoughts, feelings, or actions; common warning signs that someone needs help dealing with troublesome thoughts, feelings, or actions; when and how to ask for help; and how to identify and access trusted adults.
 - c. Use the CDC’s HECAT Mental and Emotional Health module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Mental and Emotional Health](#)).
2. The teacher posts and introduces the HBO of the lesson so that there is a clear understanding of the expected outcome for the lesson, which is to get help for troublesome thoughts, feelings, or actions.
3. The teacher posts the definition of “troublesome feelings” on the board: Troublesome feelings are “strong feelings that can cause problems for you or make you feel overwhelmed.”
4. The students are asked to write down three troublesome feelings that youth their age may experience. Students share and discuss answers, and the teacher posts them on the board. Examples may include anger, anxiety, depression, sadness, hurt, or loneliness.



5. The teacher explains that most individuals experience these emotions occasionally and temporarily and do not require medical attention or intervention. However, when these emotions become overwhelming and last over time, students need to tell a trusted adult.
6. The teacher circles three of the feelings that students have identified as troublesome and divides students into triads to answer the following questions for the selected feelings:
 - a. What might cause young people to experience these feelings? Examples may include loss, divorce, breakups, or poor test scores.
 - b. What healthy strategies can be used to deal with these feelings? Examples may include talking with a friend, journaling, exercising, or deep breathing.

The students report answers, and the teacher discusses their responses. The teacher explains that sometimes when feelings are overwhelming or ongoing, it is important to seek help from a trusted adult who could offer insight, advice, or help to access needed resources.

7. The teacher asks the students for examples of trusted adults they could go to if they needed help. Examples may include parents, family members, coaches, school nurses, counselors, or teachers.
8. The students complete a 3–2–1 exit ticket responding to the following prompts:
 - a. Three common troublesome thoughts, feelings, or actions experienced by teens are...
 - b. Two healthy strategies to help deal with these troublesome feelings are...
 - c. One trusted adult I could go to for help is...

Example 2

For this example, the unit that is being taught is Promoting Mental and Emotional Health, and the HBO for the lesson is *MEH-4: Prevent and manage emotional stress and anxiety in healthy ways* ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on promoting mental and emotional health, the teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional health knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include Hans Selye's stress general adaptation syndrome and hormones that are released during a stressful situation.
 - b. Examples of functional health knowledge that *should be taught* include defining "stress" and identifying common stressors; determining the sources and effects of personal stressors at home, in school, and with friends; explaining the physical, social, and emotional reactions to stress; and determining the effective and ineffective ways to manage stress.
 - c. Use the CDC's HECAT Mental and Emotional Health module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Mental and Emotional Health](#)).



2. The teacher posts and introduces the HBO of the lesson so that there is a clear understanding of the expected outcome, which is to prevent and manage emotional stress and anxiety in healthy ways.
3. The teacher writes a statement on the board that causes a stress response for students as they enter the room—for example, “assign a research paper,” “midterm exam,” or “oral presentation.”
4. After several minutes, the teacher asks the students what they were feeling when they read the assignment on the board (e.g., angry, confused, panicked). The teacher asks them how they felt physically (e.g., stomachache, headache, tense).
5. The teacher defines and explains how stress is the feeling of pressure and it is a part of life. Stress can be useful and help you to grow, or it can cause fear, upset, anxiety, and illness. Everyone experiences stress throughout their lives. We don't always have control over the stressor; however, what we can control is how we respond to stress, which effects our emotional health and well-being.
6. The teacher defines a stressor as anything that causes stress. The teacher differentiates among internal (i.e., imposed by self, including worry and self-doubt) and external (i.e., coming from outside, including pressure from family, friends, and peers). Stressors can also be positive (e.g., graduation, party, athletic event) or negative (e.g., sickness, death, loss). The teacher then describes the differences of each and explains that stress in our lives is how we mature and grow.
7. The teacher divides students up into small groups. Each group is given a piece of butcher paper and markers. Students list examples of stressors they may experience in their lives and indicate whether they are internal or external and positive or negative. Students will report to class. After they report, the teacher asks students what similarities or differences they noticed and discusses that not all people perceive or respond to stress in the same way. The teacher asks what may influence responses (e.g., previous experience, family, ability to handle).
8. The teacher discusses effective ways to deal with stress, such as relaxation exercises, deep breathing, time management, and planning, and ineffective ways to deal with stress, such as putting things off, ignoring a problem, getting angry, and fighting.
9. The teacher leads a discussion on the long-term physical and mental health effects of stress if not effectively managed (e.g., anxiety, depression, substance use and abuse, fatigue, stomachache, headaches, and heart disease).
10. The teacher shows three brief video clips of people in stressful situations. The students describe the response as effective or ineffective (e.g., an athlete shooting a foul shot when their team is one point down, friends pressuring you to drink alcohol, waiting until the last minute to study for exams). For each video clip, the students will identify two healthy strategies that they would utilize to deal with the stressor. The students submit their responses to the teacher as an assessment of learning.

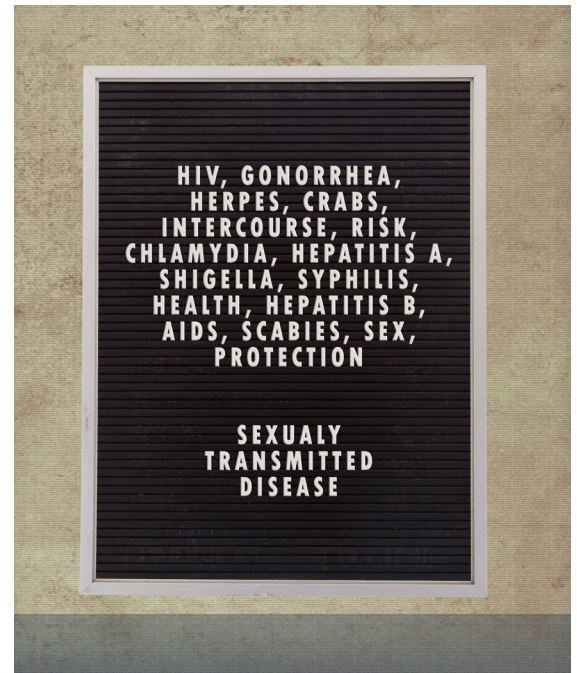
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Grades 9–12 Examples

Example 1

For this example, the unit that is being taught is Sexual Health, and the HBO for the lesson is *SH-6: Engage in behaviors that prevent or reduce sexually transmitted infections (STIs), including HIV* ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on preventing STIs, including HIV, the health teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional health knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include presenting information about every STI, having students memorize which STIs are bacterial and which are viral, and memorizing the signs and symptoms for specific STIs.
 - b. Examples of functional health knowledge that *should be taught* include explaining that there are many different STIs, how an STI is transmitted, how to prevent getting or giving an STI, common signs and symptoms of STIs (including being asymptomatic), where to get tested for STIs, and responsibilities of a person if they have an STI.
 - c. Use the CDC's HECAT Sexual Health module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Sexual Health](#)).
2. The HBO is posted and introduced so that there is a clear understanding of the expected outcome, which is to prevent or reduce STIs, including HIV.
3. The teacher then creates a true/false quiz that includes questions related to the functional health information listed above. Students are instructed to take the quiz before any instruction is provided. After students have completed the quiz independently, students pair up with a partner and compare answers.
4. The correct answers for the quiz are reviewed, and an explanation of why the answer is true or false is provided. Students are encouraged to correct their quizzes and add notes under each item with functional health knowledge provided by the teacher. Some true/false quiz item examples are listed below.
 - a. A person can have an STI and not know it (true).
 - b. Birth control pills prevent STIs (false).
 - c. People who have had only one sexual partner are not at risk for an STI (false).
 - d. Using latex condoms properly can help prevent the spread of STIs (true).
 - e. Some common symptoms of STIs are itching and burning in the genital area (true).
5. Students are asked to share one thing they learned to day about preventing STIs.



Example 2

For this example, the unit that is being taught is Alcohol and Other Drugs, and the HBO for the lesson is *AOD-4: Avoid the use of illegal drugs*. Marijuana will be the specific drug focused on for this lesson ([HECAT Appendix 3](#)).

1. When planning a lesson that focuses on preventing marijuana use, the health teacher needs to determine the functional health knowledge that needs to be taught and the nonfunctional health knowledge that should be avoided.
 - a. Examples of nonfunctional health knowledge that *should be avoided* include presenting information about how marijuana grows, listing all the chemicals in marijuana, learning about marijuana use in different countries, and making students learn how to spell “tetrahydrocannabinol” (THC).
 - b. Examples of functional health knowledge that *should be taught* include the risks of using marijuana (e.g., negative effects on brain health, mental health, athletic performance, lung function, and driving ability), marijuana addiction, and law and policies about marijuana use.
 - c. Use the CDC’s HECAT Alcohol and Other Drugs module to help identify and select functional health knowledge across grade spans ([CDC HECAT: Alcohol and Other Drugs](#)).
2. The HBO is posted and introduced so that there is a clear understanding of the expected outcome of the lesson, which is to avoid the use of marijuana.
3. The risks of using marijuana are reviewed with the students.
4. The students will then use this knowledge when participating in a carousel activity.
 - a. The teacher posts five pieces of chart paper in the room and labels them as follows: social, family, financial, education, and future.
 - b. Students are divided into five equal groups and assigned to one of the chart paper stations. Each group is given a different color marker.
 - c. Each group will have 2 minutes to brainstorm and write how using marijuana could negatively affect their assigned topic. For example, under the category of education, students might write that they might fail a subject, have difficulty in concentrating, have poor memory, etc.
5. After 2 minutes, students rotate to the piece of chart paper to their right. They read the items on the list and add to it. After 2 minutes, the students rotate to the next piece of chart paper and add to that list. They continue this process until they are back to their original piece of chart paper.
6. Students then review the list on their original piece of chart paper and circle the five negative consequences that would most likely convince a teen to not use marijuana.
7. Each group reports their answers to the entire class.
8. Students then complete the following sentence stem as an exit ticket: My top five reasons not to use marijuana are...

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