

GRADE LEVEL EXPECTATION: 4-6

HOW WALKABLE OR BIKABLE IS YOUR COMMUNITY?

CONTENT AREA: SOCIAL STUDIES; READING, WRITING AND COMMUNICATING

LESSON TIME:

1-2 class periods
homework
assignment

MATERIALS:

1. Walkability
Checklist
(following this
lesson)

2. Bikeability
Checklist
(following this
lesson)

TAKE HOME:

None

OBJECTIVE:

To help students understand their community in a different way, by having them explore how safe and comfortable it is to walk or bicycle.

BACKGROUND:

This type of review is a common planning practice. You may be able to engage an agency planner or engineer to visit your class and speak to students about this type of analysis.

4TH GRADE STANDARDS:

CONTENT AREA: SOCIAL STUDIES

2. Geography

2. Connections within and across human and physical systems are developed

6TH GRADE STANDARDS:

CONTENT AREA: SOCIAL STUDIES

2. Geography

2. Human and physical systems vary and interact

CONTENT AREA: READING, WRITING AND COMMUNICATING

1. Successful group discussion requires planning and communication

ACTIVITY:

CLASS PERIOD 1:

1. Ask students if they walk or bicycle to school. If they don't, this exercise can be done in their neighborhoods and the results shared with the class.

2. Ask if they have ever noticed barriers or problems as they walk or bicycle in their neighborhoods or to school. Note these for review later.

3. Review the Walkability or Bikeability Checklist with students.

Class Period 2:

4. Review student findings. Ask what they noticed and what challenges they identified. Ask how the identified challenges affect their walking or bicycling experience. Ask how fixing the challenges would change their experiences.

Extensions:

Have students write letters to their planning agency discussing the challenges and asking for corrections to the problems.

Walkability Checklist

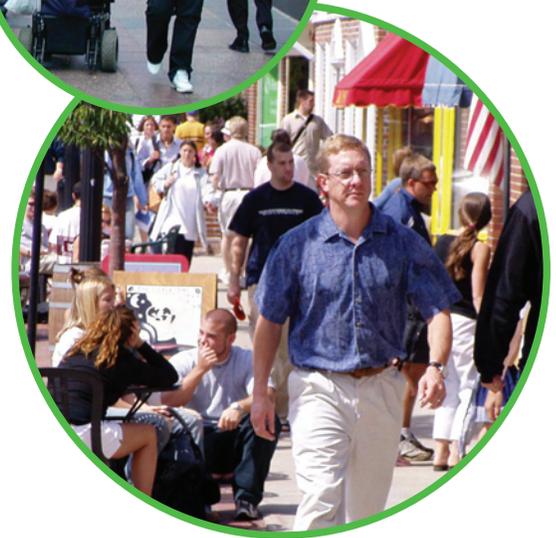
How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go. The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall. After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.



Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk

Rating Scale:



1. Did you have room to walk?

- Yes Some problems:
- Sidewalks or paths started and stopped
 - Sidewalks were broken or cracked
 - Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - No sidewalks, paths, or shoulders
 - Too much traffic
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

4. Was it easy to follow safety rules? Could you and your child...

- Yes No Cross at crosswalks or where you could see and be seen by drivers?
- Yes No Stop and look left, right and then left again before crossing streets?
- Yes No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- Yes No Cross with the light?

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

2. Was it easy to cross streets?

- Yes Some problems:
- Road was too wide
 - Traffic signals made us wait too long or did not give us enough time to cross
 - Needed striped crosswalks or traffic signals
 - Parked cars blocked our view of traffic
 - Trees or plants blocked our view of traffic
 - Needed curb ramps or ramps needed repair
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

5. Was your walk pleasant?

- Yes Some problems:
- Needed more grass, flowers, or trees
 - Scary dogs
 - Scary people
 - Not well lighted
 - Dirty, lots of litter or trash
 - Dirty air due to automobile exhaust
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

3. Did drivers behave well?

- Yes Some problems: Drivers ...
- Backed out of driveways without looking
 - Did not yield to people crossing the street
 - Turned into people crossing the street
 - Drove too fast
 - Sped up to make it through traffic lights or drove through traffic lights?
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

How does your neighborhood stack up? Add up your ratings and decide.

1. _____ **26-30** Celebrate! You have a great neighborhood for walking.
2. _____ **21-25** Celebrate a little. Your neighborhood is pretty good.
3. _____ **16-20** Okay, but it needs work.
4. _____ **11-15** It needs lots of work. You deserve better than that.
5. _____ **5-10** It's a disaster for walking!
- Total: _____

Now that you've identified the problems,
go to the next page to find out how to fix them.

Now that you know the problems, you can find the answers.

Improving your community's score

1. Did you have room to walk?

Sidewalks or paths started and stopped
Sidewalks broken or cracked
Sidewalks blocked
No sidewalks, paths or shoulders
Too much traffic

What you and your child can do immediately

- pick another route for now
- tell local traffic engineering or public works department about specific problems and provide a copy of the checklist

What you and your community can do with more time

- speak up at board meetings
- write or petition city for walkways and gather neighborhood signatures
- make media aware of problem
- work with a local transportation engineer to develop a plan for a safe walking route

2. Was it easy to cross streets?

Road too wide
Traffic signals made us wait too long or did not give us enough time to cross
Crosswalks/traffic signals needed
View of traffic blocked by parked cars, trees, or plants
Needed curb ramps or ramps needed repair

- pick another route for now
- share problems and checklist with local traffic engineering or public works department
- trim your trees or bushes that block the street and ask your neighbors to do the same
- leave nice notes on problem cars asking owners not to park there

- push for crosswalks/signals/ parking changes/curb ramps at city meetings
- report to traffic engineer where parked cars are safety hazards
- report illegally parked cars to the police
- request that the public works department trim trees or plants
- make media aware of problem

3. Did drivers behave well?

Backed without looking
Did not yield
Turned into walkers
Drove too fast
Sped up to make traffic lights or drove through red lights

- pick another route for now
- set an example: slow down and be considerate of others
- encourage your neighbors to do the same
- report unsafe driving to the police

- petition for more enforcement
- request protected turns
- ask city planners and traffic engineers for traffic calming ideas
- ask schools about getting crossing guards at key locations
- organize a neighborhood speed watch program

4. Could you follow safety rules?

Cross at crosswalks or where you could see and be seen
Stop and look left, right, left before crossing
Walk on sidewalks or shoulders facing traffic
Cross with the light

- educate yourself and your child about safe walking
- organize parents in your neighborhood to walk children to school

- encourage schools to teach walking safely
- help schools start safe walking programs
- encourage corporate support for flex schedules so parents can walk children to school

5. Was your walk pleasant?

Needs grass, flowers, trees
Scary dogs
Scary people
Not well lit
Dirty, litter
Lots of traffic

- point out areas to avoid to your child; agree on safe routes
- ask neighbors to keep dogs leashed or fenced
- report scary dogs to the animal control department
- report scary people to the police
- report lighting needs to the police or appropriate public works department
- take a walk with a trash bag
- plant trees, flowers in your yard
- select alternative route with less traffic

- request increased police enforcement
- start a crime watch program in your neighborhood
- organize a community clean-up day
- sponsor a neighborhood beautification or tree-planting day
- begin an adopt-a-street program
- initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

A Quick Health Check

Could not go as far or as fast as we wanted
Were tired, short of breath or had sore feet or muscles
Was the sun really hot?
Was it hot and hazy?

- start with short walks and work up to 30 minutes of walking most days
- invite a friend or child along
- walk along shaded routes where possible
- use sunscreen of SPF 15 or higher, wear a hat and sunglasses
- try not to walk during the hottest time of day

- get media to do a story about the health benefits of walking
- call parks and recreation department about community walks
- encourage corporate support for employee walking programs
- plant shade trees along routes
- have a sun safety seminar for kids
- have kids learn about unhealthy ozone days and the Air Quality Index (AQI)

Need some guidance? These resources might help...

Great Resources

WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)

UNC Highway Safety Research Center
Chapel Hill, NC
www.pedbikeinfo.org
www.walkinginfo.org

National Center for Safe Routes to School

Chapel Hill, NC
www.saferoutesinfo.org

For More Information about Who Can Help Address Community Problems

www.walkinginfo.org/problems/help.cfm

State Bicycle & Pedestrian Coordinators

<http://www.walkinginfo.org/assistance/contacts.cfm>

FEDERAL POLICY, GUIDANCE AND FUNDING SOURCES FOR WALKING FACILITIES

Federal Highway Administration

Bicycle and Pedestrian Program
Office of Natural and Human Environment
Washington, DC
www.fhwa.dot.gov/environment/bikeped/index.htm

PEDESTRIAN SAFETY

Federal Highway Administration

Pedestrian and Bicycle Safety Team
Office Of Safety
Washington, DC
http://safety.fhwa.dot.gov/ped_bike/

National Highway Traffic Safety Administration

Traffic Safety Programs
Washington, DC
www.nhtsa.dot.gov/people/injury/pedbimot/pedSAFE

SIDEWALK ACCESSIBILITY INFORMATION

US Access Board

Washington, DC
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov



Bikeability Checklist

How bikeable is your community?

Riding a bike is fun!

Bicycling is a great way to get around and to get your daily dose of physical activity. It's good for the environment, and it can save you money. No wonder many communities are encouraging people to ride their bikes more often!



Can you get to where you want to go by bike?

Some communities are more bikeable than others: how does yours rate? Read over the questions in this checklist and then take a ride in your community, perhaps to the local shops, to visit a friend, or even to work. See if you can get where you want to go by bicycle, even if you are just riding around the neighborhood to get some exercise.

At the end of your ride, answer each question and, based on your opinion, circle an overall rating for each question. You can also note any problems you encountered by checking the appropriate box(es). Be sure to make a careful note of any specific locations that need improvement.

Add up the numbers to see how you rated your ride. Then, turn to the pages that show you how to begin to improve those areas where you gave your community a low score. Before you ride, make sure your bike is in good working order, put on a helmet, and be sure you can manage the ride



Go for a ride and use this checklist to rate your neighborhood's bikeability.

How bikeable is your community?

Location of bike ride (be specific): Rating Scale:



1. Did you have a place to bicycle safely?

a) On the road, sharing the road with motor vehicles?

- Yes Some problems (please note locations):
- No space for bicyclists to ride
 - Bicycle lane or paved shoulder disappeared
 - Heavy and/or fast-moving traffic
 - Too many trucks or buses
 - No space for bicyclists on bridges or in tunnels
 - Poorly lighted roadways

Other problems:

b) On an off-road path or trail, where motor vehicles were not allowed?

- Yes Some problems:
- Path ended abruptly
 - Path didn't go where I wanted to go
 - Path intersected with roads that were difficult to cross
 - Path was crowded
 - Path was unsafe because of sharp turns or dangerous downhill
 - Path was uncomfortable because of too many hills
 - Path was poorly lighted

Other problems:

Overall "Safe Place To Ride" Rating: (circle one)

1 2 3 4 5 6

2. How was the surface that you rode on?

- Good Some problems, the road or path had:
- Potholes
 - Cracked or broken pavement
 - Debris (e.g. broken glass, sand, gravel, etc.)
 - Dangerous drain grates, utility covers, or metal plates
 - Uneven surface or gaps
 - Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)
 - Bumpy or angled railroad tracks
 - Rumble strips

Other problems:

Overall Surface Rating: (circle one)

1 2 3 4 5 6

3. How were the intersections you rode through?

- Good Some problems:
- Had to wait too long to cross intersection
 - Couldn't see crossing traffic
 - Signal didn't give me enough time to cross the road
 - Signal didn't change for a bicycle
 - Unsure where or how to ride through intersection

Other problems:

Overall Intersection Rating: (circle one)

1 2 3 4 5 6

Continue the checklist on the next page...

4. Did drivers behave well?

- Good Some problems, drivers:
- Drove too fast
 - Passed me too close
 - Did not signal
 - Harassed me
 - Cut me off
 - Ran red lights or stop sign

Other problems:

Overall Driver Rating: (circle one)

1 2 3 4 5 6

5. Was it easy for you to use your bike?

- Good Some problems:
- No maps, signs, or road markings to help me find my way
 - No safe or secure place to leave my bicycle at my destination
 - No way to take my bicycle with me on the bus or train
 - Scary dogs
 - Hard to find a direct route I liked
 - Route was too hilly

Other problems:

Overall Intersection Rating: (circle one)

1 2 3 4 5 6

6. What did you do to make your ride safer?

Your behavior contributes to the bikeability of your community. Check all that apply:

- Wore a bicycle helmet
- Obeyed traffic signal and signs
- Rode in a straight line (didn't weave)
- Signaled my turns
- Rode with (not against) traffic
- Used lights, if riding at night
- Wore reflective and/or retroreflective materials and bright clothing
- Was courteous to other travelers (motorist, skaters, pedestrians, etc.)

7. Tell us a little about yourself.

In good weather months, about how many days a month do you ride your bike?

- Never
- Occasionally (one or two)
- Frequently (5-10)
- Most (more than 15)
- Every day

Which of these phrases best describes you?

- An advanced, confident rider who is comfortable riding in most traffic situations
- An intermediate rider who is not really comfortable riding in most traffic situations
- A beginner rider who prefers to stick to the bike path or trail

How does your community rate?

Add up your ratings and decide.

(Questions 6 and 7 do not contribute to your community's score)

- | | | |
|----------|--------------|--|
| 1. _____ | 26-30 | Celebrate! You live in a bicycle-friendly community. |
| 2. _____ | 21-25 | Your community is pretty good, but there's always room for improvement. |
| 3. _____ | 16-20 | Conditions for riding are okay, but not ideal. Plenty of opportunity for improvements. |
| 4. _____ | 11-15 | Conditions are poor and you deserve better than this! Call the mayor and the newspaper right away. |
| 5. _____ | 5-10 | Oh dear. Consider wearing body armor and Christmas tree lights before venturing out again. |

Total: _____

Did you find something that needs to be changed?

On the next page, you'll find suggestions for improving the bikeability of your community based on the problems you identified. Take a look at both the short- and long-term solutions and commit to seeing at least one of each through to the end. If you don't, then who will?

During your bike ride, how did you feel physically? Could you go as far or as fast as you wanted to? Were you short of breath, tired, or were your muscles sore? The next page also has some suggestions to improve the enjoyment of your ride.

Bicycling, whether for transportation or recreation, is a great way to get 30 minutes of physical activity into your day. Riding, just like any other activity, should be something you enjoy doing. The more you enjoy it, the more likely you'll stick with it. Choose routes that match your skill level and physical activities. If a route is too long or hilly, find a new one. Start slowly and work up to your potential.

Now that you know the problems, you can find the answers.

Improving your community's score

1. Did you have a place to bicycle safely?

What you and your child can do immediately

What you and your community can do with more time

a) On the road?

No space for bicyclists to ride (e.g. no bike lane or shoulder; narrow lanes)

Bicycle lane or paved shoulder disappeared

Heavy and/or fast-moving traffic

Too many trucks or buses

No space for bicyclists on bridges or in tunnels

Poorly lighted roadways

- pick another route for now
- tell local transportation engineers or public works department about specific problems; provide a copy of your checklist
- find a class to boost your confidence about riding in traffic

- participate in local planning meetings
- encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads
- ask your public works department to consider "Share the Road" signs at specific locations
- ask your state department of transportation to include paved shoulders on all their rural highways
- establish or join a local bicycle advocacy group

b) On an off-road path or trail?

Path ended abruptly

Path didn't go where I wanted to go

Path intersected with roads that were difficult to cross

Path was crowded

Path was unsafe because of sharp turns or dangerous downhill

Path was uncomfortable because of too many hills

Path was poorly lighted

- slow down and take care when using the path
- find an on-street route
- use the path at less crowded times
- tell the trail manager or agency about specific problems

- ask the trail manager or agency to improve directional and warning signs
- petition your local transportation agency to improve path/roadway crossings
- ask for more trails in your community
- establish or join a "Friends of the Trail" advocacy group

2. How was the surface you rode on?

Potholes

Cracked or broken pavement

Debris (e.g. broken glass, sand, gravel, etc.)

Dangerous drain grates, utility covers, or metal plates

Uneven surface or gaps

Slippery surfaces when wet (e.g. bridge decks, construction plates, road markings)

Bumpy or angled railroad tracks

Rumble strips

- report problems immediately to public works department or appropriate agency
- keep your eye on the road/path
- pick another route until the problem is fixed (and check to see that the problems are fixed)
- organize a community effort to clean up the path

- participate in local planning meetings
- encourage your community to adopt a plan to improve conditions, including a network of bike lanes on major roads
- ask your public works department to consider "Share the Road" signs at specific locations
- ask your state department of transportation to include paved shoulders on all their rural highways
- establish or join a local bicycle advocacy group

3. How were the intersections you rode through?

Had to wait too long to cross intersection

Couldn't see crossing traffic

Signal didn't give me enough time to cross the road

The signal didn't change for a bicycle

Unsure where or how to ride through intersection

- pick another route for now
- tell local transportation engineers or public works department about specific problems
- take a class to improve your riding confidence and skills

- ask the public works department to look at the timing of the specific traffic signals
- ask the public works department to install loop-detectors that detect bicyclists
- suggest improvements to sightlines that include cutting back vegetation; building out the path crossing; and moving parked cars that obstruct your view
- organize community-wide, on-bike training on how to safely ride through intersections

Improving your community's score

(continued)

4. Did drivers behave well?	What you and your child can do immediately	What you and your community can do with more time
Drivers: Drove too fast Passed me too close Did not signal Harassed me Cut me off Ran red lights or stop signs	<ul style="list-style-type: none">• report unsafe drivers to the police• set an example by riding responsibly; obey traffic laws; don't antagonize drivers• always expect the unexpected• work with your community to raise awareness to share the road	<ul style="list-style-type: none">• ask the police department to enforce speed limits and safe driving• encourage your department of motor vehicles to include "Share the Road" messages in driver tests and correspondence with drivers• ask city planners and traffic engineers for traffic calming ideas• encourage your community to use cameras to catch speeders and red light runners

5. Was it easy for you to use your bike?

No maps, signs, or road markings to help me find my way No safe or secure place to leave my bicycle at my destination No way to take my bicycle with me on the bus or train Scary dogs Hard to find a direct route I liked Route was too hilly	<ul style="list-style-type: none">• plan your route ahead of time• find somewhere close by to lock your bike; never leave it unlocked• report scary dogs to the animal control department• learn to use all of your gears!	<ul style="list-style-type: none">• ask your community to publish a local bike map• ask your public works department to install bike parking racks at key destinations; work with them to identify locations• petition your transit agency to install bike racks on all their buses• plan your local route network to minimize the impact of steep hills• establish or join a bicycle user group (BUG) at your workplace
---	---	--

6. What did you do to make your ride safer?

Wore a bicycle helmet Obeyed traffic signals and signs Rode in a straight line (didn't weave) Signaled my turns Rode with (not against) traffic Used lights, if riding at night Wore reflective materials and bright clothing Was courteous to other travelers (motorists, skaters, pedestrians, etc.)	<ul style="list-style-type: none">• go to your local bike shop and buy a helmet; get lights and reflectors if you are expecting to ride at night• always follow the rules of the road and set a good example• take a class to improve your riding skills and knowledge	<ul style="list-style-type: none">• ask the police to enforce bicycle laws• encourage your school or youth agencies to teach bicycle safety (on-bike)• start or join a local bicycle club• become a bicycle safety instructor
---	--	--

Need some guidance? These resources might help...

Great Resources

BICYCLING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)

UNC Highway Safety Research Center
Chapel Hill, NC
<http://www.pedbikeinfo.org>
<http://www.bikinginfo.org>

National Center for Safe Routes to School (NCSRTS)

UNC Highway Safety Research Center
Chapel Hill, NC
<http://www.saferoutesinfo.org>

STREET DESIGN AND BICYCLE FACILITIES

American Association of State Highway and Transportation Officials (AASHTO)

Washington, D.C.
<http://www.aashto.org>

Institute of Transportation Engineers (ITE)

Washington, D.C.
<http://www.ite.org>

Association of Pedestrian and Bicycle Professionals (APBP)

Cedarburg, WI
<http://www.apbp.org>

Federal Highway Administration (FHWA)

Bicycle and Pedestrian Program
Office of Natural and Human Environment
Washington, DC
<http://www.fhwa.dot.gov/environment/bikeped/index.htm>

PATHS AND TRAILS

Rails to Trails Conservancy

Washington, DC
<http://www.railtrails.org>

National Park Service (NPS)

Washington, DC
<http://www.nps.gov/index.htm>



EDUCATION AND SAFETY

National Highway Traffic Safety Administration (NHTSA)

Bicycle Safety Program, Office of Safety Programs
Washington, DC
<http://www.nhtsa.gov/portal/site/nhtsa/menuitem.810acae50c651189ca8e410dba046a0/>

Federal Highway Administration (FHWA)

Pedestrian and Bicycle Safety Team, Office of Safety
Washington, DC
http://safety.fhwa.dot.gov/ped_bike/

SafeKids World-wide
Washington, D.C.
<http://www.safekids.org>

HEALTH

Centers for Disease Control and Prevention (CDC)

Division of Nutrition and Physical Activity
Atlanta, GA
<http://www.dcd.gov/nccdphp/dnpa>

Centers for Disease Control and Prevention (CDC)

Childhood Injury Prevention
Atlanta, GA
<http://www.dcd.gov/ncipc>

ADVOCACY GROUPS

Alliance for Biking and Walking

<http://www.peoplepoweredmovement.org>

League of American Bicyclists (LAB)

<http://www.bikeleague.org>

National Center for Bicycling and Walking (NCBW)

<http://www.bikewalk.org>

FUNDING SOURCES

Transportation Enhancement Activities:

<http://www.fhwa.dot.gov/environment/te/>

Safe Routes to School Program:

<http://safety.fhwa.dot.gov/saferoutes/>

Recreational Trails Program:

<http://www.fhwa.dot.gov/environment/rectrails/>

National Scenic Byways Program:

<http://www.bywaysonline.org/>

Federal Lands Highway Program:

<http://flh.fhwa.dot.gov/>