

Bicycle Inspection Stations Details

page 1

Basic Bicycle Inspection

Leader _____

Volunteer _____

Volunteer _____

Advanced Bicycle Preparation

Mechanic _____

Mechanic _____

SUPPLIES

- Table (2)
- Bicycle Pump (2)
- Metric allen wrenches 4, 5, and 6mm
- Phillips screwdriver
- Flat Screwdriver
- Crescent (adjustable) wrench
- Tire tools
- Spare tubes
- Hand cleaner
- Advanced mechanics will bring their own tools and repair stand.
- Spare bicycles (if possible)

The leader and volunteers will need to have basic bicycle repair knowledge. They will air tires, fix flats, adjust seats and perform a basic safety check on each bike. If there is anything wrong with the bike beyond air in tires, basic bolt adjustment or seat height adjustment, they will send the bike on to the Advanced Bicycle Preparation for more extensive repairs.

If the mechanics at the Advanced Bicycle Preparation Station deem that a bicycle is not safe to ride, the bicycle will not be allowed to be used. If spare bicycles are available, participants may check one out for use with a waiver signed by parent and the parent's driver's license for collateral. This is best done at the Main Station.



Handouts & Materials

Bicycle Inspection Stations Details

page 2

Optional Activity: Learn the Bicycle Parts Game.

Bicycle Parts Relay Set-up

CREATE HANG TAGS

Prior to this activity, create two card sets (depending upon class size) of the parts of a bicycle on three by five inch color index cards, with each set being on different color card, (2 sets, 2 colors). Cut (and laminate, if possible) each card, punch a hole in the card and provide a method of attaching it to a bicycle. Rubber bands, string and pipe cleaners all work well. Chenille pipe cleaners are a favorite and can be purchased in many hobby departments.

DEFINE A START/FINISH LINE

Define a Start/Finish Line at one end of the gym. Set up one or two bicycles and a helmet approximately 25 yards from the starting line. Divide students into two teams. Station volunteers behind the bicycles to assist students when necessary.

DISTRIBUTE HANG TAGS TO STUDENTS

INDOOR METHOD

Spread one full color set of cards out on the floor approximately five feet in front of one team and the other color set approximately five feet in front of the other team.

OUTDOOR METHOD

Hand a full set of cards to each team and have them divide them up as evenly as possible between them. If the number of students is less the number of cards, some students will have more than one card. During the activities described, instruct them to play only one card at a time.

How to Play

On the go signal, the first student from each team either picks a card off the floor or uses the card in their hand and runs to a bicycle and “tags” that part by attaching the card to the part. The card must stay on. Having to manipulate the pipe cleaner to wrap around the parts requires the student to focus on the finer details of those parts and encourages retention, while at the same time helps them to develop eye and hand coordination.

After tagging the part, the student runs back to their team line, high fives the next student in line to run, and then moves to the end of his/her team line.

The first team to finish gets one point. When both teams are finished, have all the students gather around the bicycles. The teacher calls out the parts to see if they are tagged correctly. For each incorrect tag or card that falls off, it’s minus one point for that color team. The winning team has the highest score.



Vehicle Safety Inspection Checklist

page 1

Check all boxes that apply when inspecting a bicycle.

Handlebars

- Move Sideways
- Move Front to Back
- OK Cannot Move

Saddle Position

- Too High
- Too Low
- Too Loose
- Correct Height
- OK Cannot Move

Tires

- Low Pressure
- Worn
- OK

Brakes

- Front Pads Worn
- Levers Need Adjustment
- Rear Pads Worn
- Cable Ends Frayed
- Cable Ends Capped
- OK Brakes Are Effective

Coaster Brakes

- Do Not Stop
- OK Brakes Are Effective

Hand Grips

- Hand Grips Uncovered
- OK Grips Don't Twist
- OK Ends Plugged & Protected

Frame / Fork

- Bent
- Cracked
- OK

Reflectors & Lights

- Front Light Missing
- Rear Red Reflector Missing
- Reflector Hanger Bent
- OK Reflector Attached
- OK Front Light Attached & Working
- OK Rear Light Attached & Working

Quick Release Levers

- Closed
- Facing Backward

Chain

- Dirty
- Rusty
- Too Loose
- OK

Frame Size

- Too Big
- Too Small
- OK

ABCD Quick Check	A. Air / Wheels: <i>Is the air pressure in the tires correct?</i> <i>Are the tires in good shape?</i> <i>Do the wheels spin freely on the hub?</i> <i>Are all the spokes tight?</i>	C. Chain / Crank / Pedal: <i>Is the chain straight?</i> <i>Is the chain clean and lightly oiled?</i> <i>Is the chain free of rust?</i> <i>Is the crank tight and secure?</i> <i>Are the pedals tight and secure?</i>	Quick / Check: <i>Quick; If the bike is equipped with quick release fittings, are they properly adjusted?</i>	
	B. Brakes: <i>Do the brakes make the wheels skid?</i> <i>Are the pads in good shape?</i> <i>Spin both wheels; do the brake pads rub?</i>	D. Drop: <i>Raise the bike about two inches and drop it.</i> <i>Does it make noise? Something may be loose.</i>	Check; Ride around slowly, does the bike appear to operate properly?	

Handlebars

With front wheel between legs, try to twist and then rotate handlebars. Tighten as needed to secure and tighten in a straight position. Bounce bike a few inches off the ground. Loose nuts, bolts, and spokes will be revealed.

Saddle Position

Try to twist the saddle. It should be tight and not move. The seat should be level with the ground. The seat height is adjusted so that your knee has a slight bend when you are sitting on the saddle with your foot level on the pedal at the bottom of the stroke. This will be uncomfortable for the novice rider because the toes just touch the ground when seated on the saddle. A seat post has a line on it showing the maximum extension. You need a longer seat post if that line is exposed.

Tires

Thumb test by pushing down on each tire. Too much indent could require additional air. Make sure that tires are not cracked or worn. The PSI is the air pressure that a tire is designed to hold, and is printed on the tire for reference. To

exceed recommended PSI could result in a tire blow out which often occurs when utilizing a gas station air compressor.

Brakes

Depress levers and place fingers between lever and handlebar. At least one inch of space must remain between depressed lever and handlebar.

Coaster Brakes (if there is one)

Ability to leave a skid mark. Either have cyclist do a skid or push forward and push pedal to apply brake. Is the brake arm attached to the frame near the rear wheel?

Hand Grips

Must not twist easily. They must cover the handlebar ends with no protrusion of metal allowed.

Frame / Fork

Sturdy, straight, and secure with no evident damage.

Reflectors & Lights

Check that all lights and reflectors are mounted securely on the bike and are visible from a distance. Some state laws require a white light (not a reflector) in front and a red light or red reflector in back when riding at night.

Frame Size

Straddle the bicycle with the top tube between the legs. Lifting handlebars and front wheel, the cyclist must have 1-3 inches of space. A young cyclist cannot adequately control a bike that is too big and lack of control leads to dangerous riding habits.

Chain

No excessive looseness. Taut with some play.

**Protect Yourself!
Wear a Helmet!**

Lista de Revisión de Seguridad de Bicicleta

page 2

Marca todas las cajas que se usan al revisar una bicicleta.

Manubrio

- Se Mueve de Lado a Lado
- Se Mueve de Frente hacia Atrás
- OK No se Puede Mover

Posición del Asiento

- Demasiado Alto
- Demasiado Bajo
- Demasiado Flojo
- Altura Correcta
- OK No se Puede mover

Llantas

- Presión baja
- Desgastadas
- OK

Frenos de Mano

- Zapatas del Frente Desgastadas
- Las palancas Necesitan Ajuste
- Zapatas Traseras Desgastadas
- Extremos del Cable Frayed
- Extremos del Cable Abiertos
- OK Los Frenos son Eficaces

Frenos de Pie (Contra Pedal)

- No Frenan
- Ok Los Frenos son Eficaces

Puños / Grips

- Grips Descubiertos
- Extremos Tapados y Protegidos
- OK. Grips No se Tuercen

Cuadro / Tijera

- Torcidos
- Rotos / Cuarteados
- OK

Reflectores y Luces

- Luz Delantera Perdida
- Reflector Rojo Trasero Perdido
- Base del Reflector Torcida
- OK Reflector Sujeto
- OK Luz Delantera Sujeta y Trabajando
- Luz Trasera Sujeta y Trabajando

Bloqueos

- Cerrados
- Viendo hacia atrás

Cadena

- Sucia
- Oxidada
- Demasiado Floja
- OK

Tamaño del Cuadro

- Demasiado Grande
- Demasiado Pequeño
- OK

ABCD Revisión Rápida

A. Aire / Ruedas:

- ¿Es correcta la presión en las llantas?*
- ¿Las llantas están en buenas condiciones?*
- ¿Las ruedas giran fácilmente?*
- ¿Todos los rayos están apretados?*

B. Frenos:

- ¿Los frenos hacen que las ruedas derrapen?*
- ¿Las zapatas están en buenas condiciones?*
- Gira las dos ruedas; los frenos rosan en el rin?*

C. Cadena / Multiplicación / Pedales:

- ¿La cadena esta derecha?*
- ¿Esta limpia y ligeramente lubricada?*
- La cadena está libre de oxido?*
- La palanca de multiplicación esta apretada y segura?*
- Los pedales están apretados y seguros?*

D. Déjala Caer:

- Levanta la bicicleta aproximadamente dos pulgadas y déjala caer sobre las llantas.*
- ¿Hace ruido? Algo puede estar suelto.*

Revisión Rápida:

Rápido; *¿Si la bicicleta está equipada con bloqueos, están apretados?*

Chequeo; *Maneja la bicicleta despacio, la bicicleta se ve que opera apropiadamente?*

Manubrios

Con la rueda delantera entre las piernas, intenta torcer y entonces gira el manubrio. Apriétalo como sea necesario para asegurar y apriétalo en posición recta. Deja caer la bicicleta sobre las llantas a unas pulgadas del suelo. Aparecerán las partes sueltas, tuercas, tornillos, y rayos.

Posición del Asiento

Intenta voltear el asiento. Debe estar firme y no tener movimiento. El asiento debe estar nivelado con el suelo. La altura del asiento debe estar ajustada, para que tu rodilla tenga un dobles ligero cuando estés sentado en el asiento, con tu pie nivelado en el pedal, al final del pedaleo. Esto será incómodo para el ciclista principiante porque los dedos del pie apenas tocan el suelo cuando estas sentado en el asiento. El poste de asiento tiene una línea que muestra la extensión máxima. Necesitarás un poste de asiento más largo si esa línea es expuesta.

Llantas

Prueba la presión con el dedo pulgar empujando hacia abajo en cada llanta. Demasiado floja podría requerir aire adicional. Las llantas no deben estar cortadas o cuarteadas.

El PSI es la medida de presión de aire que una llanta está diseñada a aguantar, y está impresa en la llanta como referencia. El exceder la presión recomendada podría tener como resultado que la llanta explote, esto es común que ocurra cuando se utiliza un compresor de aire en una estación de gasolina.

Frenos de Mano

Oprime las palancas y pon los dedos entre la palanca y manubrio Por lo menos una pulgada de espacio debe permanecer entre palanca oprimida y el manubrio.

Frenos de Pie (Contra Pedal)

Habilidad para dejar una marca de derrapon. Deja que un ciclista hacer (haga) un derrapon o empuja hacia adelante y empuja el pedal para frenar. ¿El brazo del freno esta sujeto al cuadro por la rueda trasera?

Grips / Puños

No deben torcerse fácilmente. Deben cubrir los extremos del manubrio sin permitir que el metal sobresalga.

Cuadro / Tijera

Fuerte, recto, y seguro sin daño evidente.

Reflectores y Luces

Verifica que las luces y reflectores estén montados y asegurados en la bicicleta y que sean visibles a distancia. Las leyes de algunos estados requieren una luz blanca (no reflector) en el frente y una luz roja o reflector en la parte de atrás de la bicicleta para montar de noche.

Tamaño del Cuadro

Monta la bicicleta con el tubo de encima entre las piernas. Levantando el manubrio y la rueda del frente, el ciclista debe tener de 1 - 3 pulgadas de espacio. Un joven ciclista no puede controlar una bicicleta adecuadamente cuando esta es demasiado grande, un mal control te lleva a una situación peligrosa.

Cadena

Sin soltura excesiva. Tenso con algo de juego.