



Name: _____ Learner Number: _ _ _ _

Centre Name: Breaking Cycles CIC

Centre Number: 84100

CYCLE RIDE LEADER: MECHANICAL SKILLS

(UNIT 4 Workbook)

In order to complete unit four, you will perform a range of mechanical tasks on your own bike and complete this workbook. The evidence that you have achieved this will be this workbook and a summary sheet completed by your assessor after observing you working on your bike.

Successful participants in this unit will have:

- Demonstrated the ability to
 1. perform an M-Check to ensure a bike is roadworthy
 2. remove and re-fit the rear wheel of their bike
 3. remove a tyre using tyre levers, check the tyre for sharps, reseal the tyre and re-inflate the tyre
 4. check that bolts are tightened correctly
 5. split a chain with a chain tool and re-join it with a split link
 6. clean their bike, using specialist cleaning products for two components
- Shown knowledge of
 7. two ways to identify that a tyre is worn
 8. identifying wear on braking components
 9. how cable brakes work
 10. how hydraulic brakes work
 11. how mechanical gears work
 12. three types of lubricant and their uses

(Outcomes 7 & 8) Checking for wear and tear.

Knowing when to replace wearable parts like tyres and braking components helps you to keep safe and get the most out of your equipment.

Label the pictures, explaining what you should check and how you know that whether it is worn out or safe to use.

Tyres



Brake Blocks



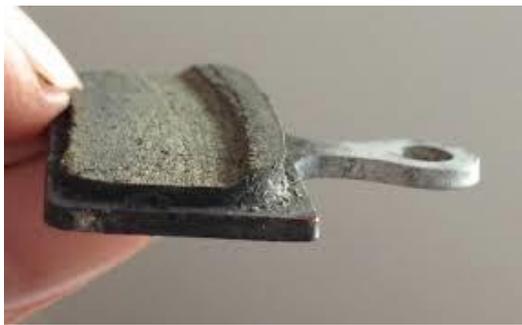
Rims



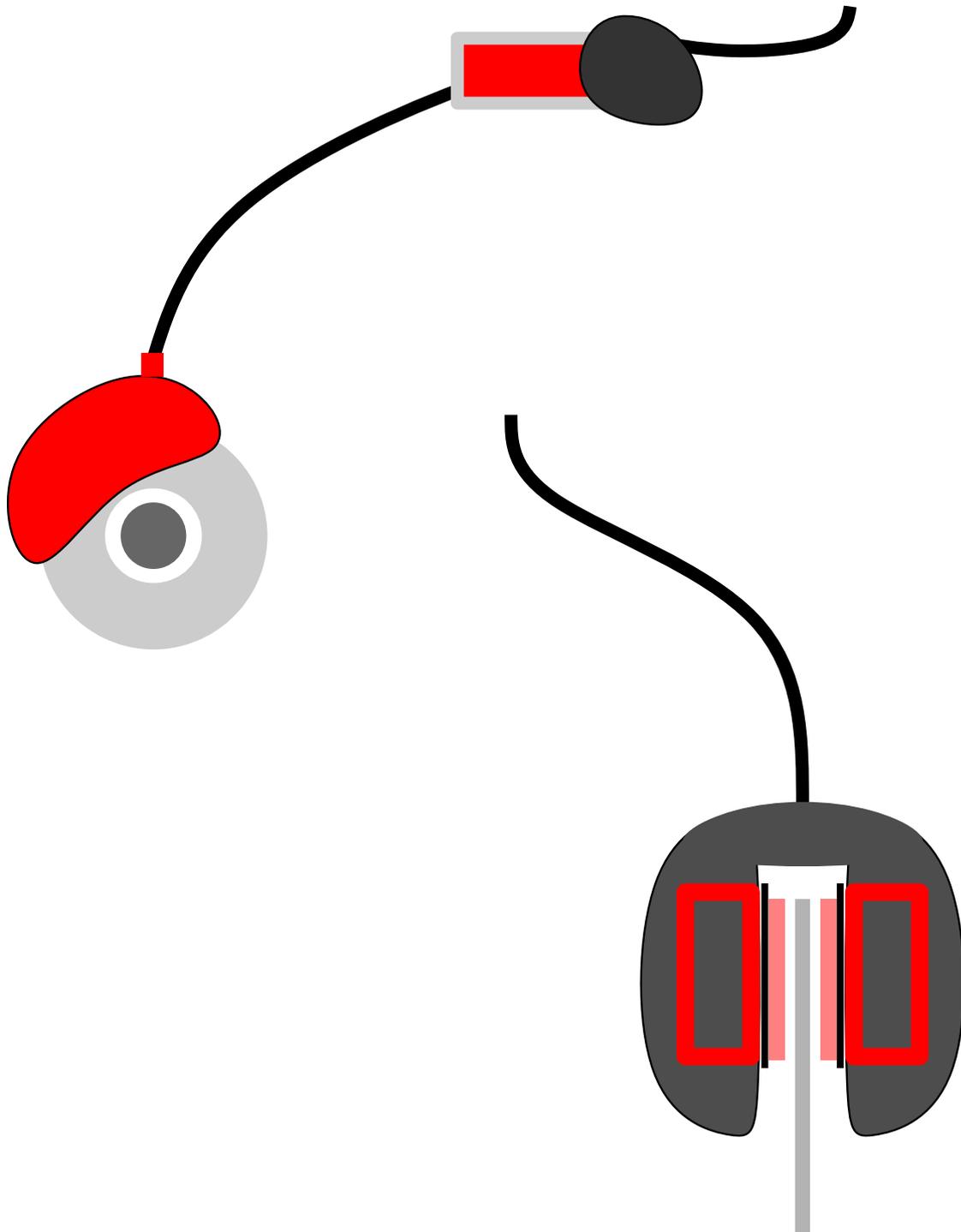
Disc brake rotors



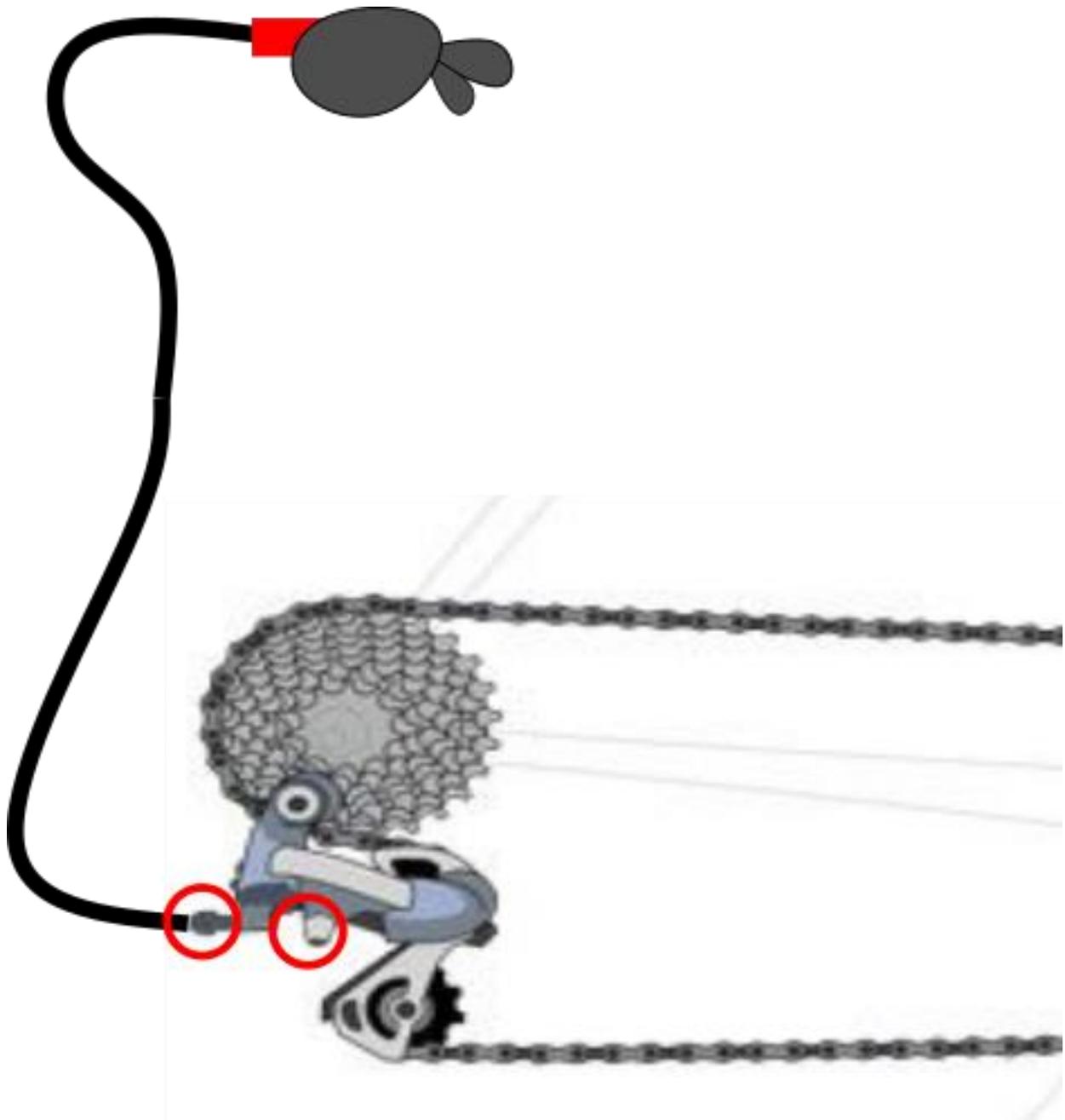
Disc brake pads



Hydraulic Brakes



Mechanical Gears



(Outcome 12) Lubricants.

Bicycles have a lot of moving parts, which require lubricating, but different parts require different lubricants in order to keep things running smoothly.

Link the lubricant to the task by drawing a line between the boxes. Make notes explaining why you have made each choice under the task box

Grease

This is thick and sticky and won't wash away easily

Lubricating a chain

PTFE spray

This also disperses water. Its thin and easy to apply

Applying to threads and bearings when installing new parts

Ceramic lube

This dries, leaving a waxy residue that doesn't pick up much dirt and lasts for a long time.

Applying to cables, springs and hinged parts to ensure they don't go rusty in storage