

A. Constructing Common Physical Objects

Since we are interested in acquiring commonsense knowledge about the world, and the material composition of physical objects is an important aspect of such knowledge, our initial aim is to collect a list of physical objects that many people perceive or interact with. We are focusing on artifacts since their part structure, and especially their material composition, is generally clearer than that of natural objects. Consider for example humans, bushes, mountains, or stars; also, we plan to extend this work to provide usage (telic) information about objects, an aspect that applies much more clearly and consistently to artifacts than to natural objects.

A.1. Filtering via Wikidata information

For this, we first obtain all Wikidata entities from its JSON dump (downloaded on May 26th, 2023). We select entities that are subclasses of ‘artificial physical objects’ (Q8205328), which which ontologically encompassed ‘artificial physical structure’ (Q11908691) and ‘artificial object’ (Q16686448). The selected list still contains abstract entities such as ‘process’ and ‘genre’ due to multiple inheritances in Wikidata. To mitigate this issue, we apply two layers of filtering:

1. Keyword-based filtering: If the entity’s Wikipedia title contains specific keywords, it is excluded. Examples of such keywords include law, protein, pattern, physics, topology, and unit. The full lists of predefined keywords are provided in Table A1.
2. Subclass-based filtering: If an entity belongs to specific subclasses, it and all its descendant categories are excluded. Examples of these subclasses are concept, detection, genre, formal system, organism, and sound.
 - Direct exclusion: An entity is removed if it appears in Table A2 or A3.
 - Ancestral exclusion: An entity is removed if any of its ancestors appear in Table A2.
 - Conditional ancestral exclusion: An entity is removed if any of its ancestors appear in Table A3, unless one of the following exceptions is also present in its ancestry: ‘electronic machine’ (Q2858615), ‘equipment’ (Q10273457), ‘physical component’ (Q122853586), ‘portable object’ (Q32914898), and ‘tangible good’ (Q1485500).

abstract data type	algebra	algebraic geometry
annotation	administrative division	alphabet
BDSM	bishop	broadcast
category theory	chess	chess composition
color	colour	computer programming
computer science	computer security	computing
control theory	cooking technique	cryptography
currency	curve	dance
databases	data mining	digital
drama	Dungeons & Dragons	economics
fiction	formal languages	feudal barony
gaming	gay culture	gender
genre	geometry	graph theory
graphic design	group	group theory
hairstyle	heraldry	image processing
information	international law	law
linear algebra	literature	literary theory
management	material	mathematical logic
mathematics	mathematics and physics	measure theory
memory management	mineralogy	Mozilla
narrative	number theory	optics
order theory	pattern	physics
Pictish symbol	polygon	predicate logic

programming	protein	representation theory
ring theory	road tax	saying
set theory	settlement or colony	sexuality
social and political	sociology	software
software development	SQR	Star Trek
Star Wars	statistics	stereotype
system call	systems architecture	technology
telecommunications	topology	unit
video games		

Table A1

List of exclusion keywords.

anatomical structure (Q4936952)	concept (Q151885)
cultural depiction (Q20742825)	detection (Q5720030)
expression (Q778379)	food (Q2095)
formal system (Q649732)	game (Q11410)
genre (Q483394)	material (Q16829513)
medication (Q12140)	moving Image (Q10301427)
musical release (Q2031291)	narrative (Q1318295)
non-existent Entity (Q64728693)	organic Compound (Q174211)
organism (Q7239)	organization (Q43229)
paratext (Q853520)	program (Q4303335)
representation (Q4393498)	sound (Q11461)
typeface (Q17451)	

Table A2

Direct exclusion subclasses with their corresponding QIDs.

applied computer science (Q538722)	information (Q11028)
link (Q3833047)	process(Q3249551)
software (Q7397)	software component (Q17176533)
network (Q1900326)	

Table A3

Ancestral exclusion subclasses with their corresponding QIDs.

A.2. Filtering with WordNet and Wikipedia links

The list of entities is further filtered to retain only commonly known nouns that occur as dictionary entries. We filter out entries based on the availability of the entries and their synonyms in WordNet; we filter out entries if neither the entry noun itself nor any of its synonyms exist in WordNet, and if the entry does not have any link from Wikidata to its associated WordNet synset. Wikidata entries without a link to their corresponding Wikipedia articles are also excluded.

A.3. Refining the list using GPT-4

Lastly, to refine the entries to include only physical entities that are both commonly encountered and readily perceptible, we ask GPT-4 a series of filtering prompts. First, we use a prompt to identify readily perceived entities that a sixth-grader would know. Then, the resulting subset is filtered to retain only physical objects. Next, we further refine the list to isolate count nouns from the remaining entities, and finally, to ensure the remaining items are discrete, standalone objects, rather than collections. Below are the simplified prompts used in the filtering process, with examples of entities that are filtered out, either as intended or in cases that include errors and borderline situations. The full prompts used for each stage of the filtering can be found in Figure 1.

1. Prompt: How likely is the given thing to be commonly recognized by a typical sixth-grader?
 - Filtered out: *Air compressor, Foil (fencing), Fume hood, Hookah, Paper knife, Sabre saw, Spar (platform)*
 - Also filtered out: *Coffee percolator, Drop-leaf table, Egg cup, Reed (mouthpiece), Slip (clothing)*
2. Prompt: Does the given noun primarily refer to standalone physical objects, standalone built structures, substances, or neither?
 - Filtered out: *Aquatic science, Bath salts, Dishwashing, Essay, Hair spray, National park, Postmark, Toxin*
 - Also filtered out: *Dressing (medical), Duct tape, Padding*
3. Prompt: Is the given noun in general used as a mass noun or a count noun?
 - Filtered out: *Academic dress, Central heating, Computer memory, Glass art, Public housing, Road surface, Trim (sewing)*
 - Also filtered out: *Bedding, Brass knuckles, Carpet, Dental floss, Fishing tackle, Mesh, Shoe polish, Snow chains*
4. Prompt: Is the given noun typically described as an entity on its own, or composed of multiple standalone entities?
 - Filtered out: *Block (district subdivision), Bow and arrow, Chess set, First aid kit, School uniform, Salad bar*
 - Also filtered out: *Beehive, Chopsticks, Salt and pepper shakers, Protective equipment in gridiron football*

Examples of entities that were retained but should have been filtered include *Alley, Blind corner, Capital city, Nursery (room), Quarry, Relic, Scuba set, and Spare part*.

A.4. The resultant list of common physical objects

The resulting list, after GPT-4 filtering, contains 2,313 unique entries. Examples include *Rubber band, String instrument, Dashboard, Stuffed toy, Gavel, Bird bath, Headgear, Bed sheet, Garden fork, Washboard (laundry), Briefs, Horse-drawn vehicle, Soda fountain, Tea bag, and Piano pedals*. While each entry is distinct, some may overlap in meaning and exhibit subsumption relationships (e.g., *Backpack* being a specific type of *Bag*).

It is important to note that the list is not exhaustive. Its scope was ultimately constrained by the structure and content of Wikidata and the availability of linked resources. Gaps in subclass labeling, missing links to Wikipedia or WordNet, and semantic ambiguity meant that some everyday objects may have been inadvertently excluded. For example, items such as *Mobile phone case, Mobile phone accessory, Whiteboard, Lunchbox, Kitchen knife, or Exercise ball* do not exist in WordNet and therefore were not part of the initial pool, highlighting the constraints of the identification process.

Prompt to Identify Readily Perceived Entities

How likely are the following 50 things to be commonly recognized by a typical sixth-grader? Add ‘ - [likely / probably likely / probably unlikely / unlikely] to be recognized by sixth-graders’ after the nouns in the list. Please do not alter the names within parentheses.

Prompt to Identify Physical Entities

Could you classify the following 50 nouns based on whether they primarily refer to standalone physical objects, standalone built structures, substances, or neither? Add ‘ - is a [physical object / built structure / substance / neither]’ after the nouns in the list. Please do not alter the names within parentheses.

Here are the criteria for each category:

- Physical objects: Tangible items that can exist independently, or items that might be part of a larger entity but can be replaced.
- Built structures: Man-made constructions that serve as physical places or infrastructure.
- Substances: Any substance with uniform characteristics or any matter that can be best characterized by their chemical composition.
- Neither: None of the above.

Prompt to Identify Count Nouns

Could you classify the following 50 nouns based on whether they are in general used as a mass noun or a count noun? Add ‘ - mass noun’ or ‘ - count noun’ accordingly after the nouns in the list.

Prompt to Identify Individual Standalone Entities

Could you classify the following 50 nouns based on whether they are typically described as an entity on their own, or composed of multiple standalone entities? Add ‘ - a single entity’, ‘ - a group of components but commonly referred to as a single item’, or ‘ - a group of multiple standalone items’ accordingly after the nouns in the list.

Figure 1: Prompts used to identify common physical objects

B. Few-shot In-Context Learning Prompts

The five in-context examples used in the prompts are carefully selected from the human-annotated data (which is discussed in detail in Section 4.2.1 of the main paper and Section H of the supplementary materials) to capture diverse patterns. Specifically, for the prompt designed to extract subtypes and parts, the examples are selected to include: (i) sub-subtypes (e.g., barn), (ii) instances with no distinct parts (e.g., saucer), (iii) instances with no distinct subtypes (e.g., paintbrush), (iv) cases with optional parts (e.g., frying pan), and (v) cases with only essential parts (e.g., glove). For the materials extraction prompt, the examples are chosen to illustrate variations in conjunction usage ('and,' 'or,' 'and/or') as well as differences between unique and repeating materials, though this set exhibited fewer structural variations. The following subsections present the full prompts used for few-shot learning.

B.1. Prompt for subtypes and parts

Please list common categories and their sub-categories, and their constituent parts of the given entity. Each type must be distinguished solely by the unique presence of their essential parts or components. Only list essential parts, not in their variations in shape, size, material, or function. Please do not count chemical substances such as electrolyte as essential parts.

Alternatively, you may state "No distinct subtypes based on the constituent parts" instead of listing subtypes if there are no variations in the essential, unique parts that distinguish the subtypes. Then, indicate "Physical parts" underneath.

Please do not state any descriptive terms or clarifications within parentheses. Only indicate "(optional)" where applicable. You may use "internal mechanism" as a part for any components not visible externally but essential for function.

##

Entity 1: Barn

Subtypes 1:

1. English barn: walls, roof, floor, frame, three bays
2. Livestock barn: walls, roof, floor, frame, tack room, feed room (optional), drive bay, silo, stalls
3. Dairy barn: walls, roof, floor, frame, tack room, feed room, drive bay, silo, stalls, milk house, grain bin, indoor corral (optional)
4. Crop storage barn: walls, roof, frame, drive bay
5. Crib barn: walls, roof, cribs, roof shingles
6. Bank barn
- 6.a) New England barn: walls, roof, roof shingles, floor, tack room (optional), frame
- 6.b) Pennsylvania barn: walls, roof, roof shingles, floor, forbear, frame, gables (optional)

##

Entity 2: Saucer

Subtypes 2: No distinct subtypes based on the constituent parts.

Physical parts: No distinct parts

##

Entity 3: Paintbrush

Subtypes 3: No distinct subtypes based on the constituent parts.

Physical parts: handle, bristle, ferrule

##

Entity 4: Frying pan

Subtypes 4:

1. Stovetop frying pan: body, handle
2. Electric frying pan: body, handle, legs, lid (optional), lid knob (optional), power cord, thermostat

##

Entity 5: Glove (ice hockey)

Subtypes 5:

1. Skater's gloves: palm, back, fingers, padding
2. Blocker: palm, back, fingers, padding, forearm pad
3. Trapper: palm, back, fingers, padding, cuff, pocket, inner glove

##

Entity 6: [noun]

Subtypes 6:

B.2. Prompt for Materials

Please list the materials that the listed parts of the given entity are typically made of. Exclude any materials used for joining, stitching or dying.

Allow any necessary repetition in materials across different parts. Avoid using "sometimes", "such as", and parentheses in your response. Connect the materials with one of the following conjunctions:

- "and": all listed materials are typically used together
- "or": each of the materials from the list is used exclusively
- "and/or": some of the listed materials are typically used in combination

##

Entity 1: Peripheral webcam (Webcam)

Parts: case, camera lens, image sensor, mount, interface

Materials:

1. case: plastic
2. camera lens: plastic or glass
3. image sensor: electronics
4. mount: metal
5. interface: electronics, metal, and plastics

##

Entity 2: Paper cup

Parts: cup, cardboard lining, lid

Materials:

1. cup: paper
2. cardboard lining: plastic or wax
3. lid: plastic

##

Entity 3: Facial tissue

Parts: -

Materials: absorbent paper

##

Entity 4: Paintbrush

Parts: bristle, ferrule, handle

Materials:

1. bristle: animal hair, nylon, and/or polyester
2. ferrule: metal
3. handle: wood or plastic

##

Entity 5: Skater's gloves (ice hockey)

Parts: palm, back, fingers, padding

Materials:

1. palm: leather
2. back: leather and/or kevlar
3. fingers: leather and/or kevlar
4. padding: foam

##

Entity 6: [noun]

Parts: [parts]

Materials:

C. Multi-Step Zero-Shot Learning Prompts

C.1. Prompt to assess whether an entity has subtypes

Are there any essential, non-optional parts

- 1) that are present in one type of [noun] but absent in another and
- 2) that would be recognized by most people?

Simply say “yes” or “no”.

C.2. Prompt to generate a list of subtypes

In numbered points, please simply list physically distinct types of noun, where each type is distinguished by unique, externally visible, essential parts.

Exclude any categories that share the same essential external components and functions. The listed categories should reflect differences in their primary operation rather than just external design variations or connections.

Also, avoid from your list any categories that merely represent design variations, subtypes, or alternate names for the same tool. Format each entry as a complete noun without using ‘traditional’, ‘and’, ‘or’, nouns indicating materials, or any prepositional phrases such as ‘with’ in the names.

C.3. Prompt to identify common subtypes

How likely would the following types of noun be recognized by most people? Add “ - [likely / probably likely / probably unlikely / unlikely] recognized by most people” after the nouns in the list. Please do not alter the names within parentheses.

C.4. Prompt to assess whether an object has parts

How many parts does noun have? Specifically, how many clearly distinct parts that are attached to it or inseparable from it? Please simply say the number of parts.

C.5. Prompt to assess whether an object has uniform materials across different parts

Are distinct parts of noun made of the same materials? Say “yes” or “no”.

C.6. Prompt to identify materials of an object

In one line, please list solely the types of materials that noun are typically made of. Avoid using “sometimes”, and connect the materials with a conjunction, e.g., ‘glass, plastic, and/or metal’. Exclude any materials used for joining, stitching or dyeing.

Here are the conjunctions you can use:

- “and”: all listed materials are typically used together
- “or”: each of the materials from the list is used exclusively
- “and/or”: some of the listed materials are typically used in combination.

C.7. Prompt to identify parts and materials of an object

1) Starting your paragraph with “<Parts>\n”, in numbered points, please list clearly distinct, essential parts of noun with succinct descriptions followed by “:”. For each part, insert a new line that starts with “- Optional:”. Answer with “yes” or “no”.

2) Starting your paragraph with “<Materials>: ”, in new bullet points, please list solely the materials that a typical noun is entirely made of. Avoid using “sometimes”, and connect the materials with a conjunction, e.g., ‘<Materials>: glass, plastic, and/or metal’. Exclude any materials used for joining, stitching or dying. Here are the conjunctions you can use. - “and”: all listed materials are typically used together

- “or”: each of the materials from the list is used exclusively
- “and/or”: some of the listed materials are typically used in combination.

Keep your answers very simple, in terms a second-grader would understand.

C.8. Prompt to identify an object’s parts and their materials

In numbered points, please list the clearly distinct, essential parts of noun that are attached to it or inseparable from it, with succinct descriptions following “:”. Things that have multiple independent uses, such as ‘battery’, don’t count as a part. You may use “internal mechanism” as a part for anything that is not visible from the outside.

For each part, insert a new line that starts with “- Optional:”. Answer with “yes” or “no”.

Then again, for each part, insert a new line that starts with “- Materials:” and mention the materials the part is typically made of. List the materials, avoiding using “sometimes”, and connect the materials with a conjunction, e.g., ‘- Materials: glass, plastic, and/or metal’. Here are the conjunctions you can use.

- “and”: all listed materials are typically used together
- “or”: each of the materials from the list is used exclusively
- “and/or”: some of the listed materials are typically used in combination.

Keep your answers very simple, in terms a second-grader would understand.

D. Examples of Knowledge Extracted through Few-Shot Learning

D.1. Entity: Boomerang

Subtype	Subsubtype	Part	(optional)	Material
–	–	aerofoil edges		wood or plastic
		elbow		wood or plastic

D.2. Entity: Eraser

Subtype	Subsubtype	Part	(optional)	Material
–	–	–		rubber, vinyl, or plastic

D.3. Entity: Bottle opener

Subtype	Subsubtype	Part	(optional)	Material
Crown cork opener	–	handle		wood, plastic, or metal
		metal tooth		metal
Wine bottle opener	Waiter's friend	handle		wood, plastic, or metal
		worm		metal
		lever		metal
		foil cutter	✓	metal
Wine bottle opener	Winged corkscrew	handle		plastic or wood
		worm		metal
		levers		metal
		frame		metal
Wine bottle opener	T-handle corkscrew	handle		wood or plastic
		worm		metal
Versatile Bottle Opener	–	handle		plastic or rubber
		bottle blade		metal
		screw cap opener		metal
		can piercer		metal

D.4. Entity: Organ (music)

Subtype	Subsubtype	Part	(optional)	Material
Pipe organ	–	pipes		metal and/or wood
		blower		metal, plastic, and rubber
		console		wood
		manuals		plastic or ivory and wood
		pedalboard		wood and metal
		stop controls		wood, metal, and/or plastics
Electronic organ	–	speakers		metal, paper, and plastic
		electronic generator	sound	electronic materials, metal, and plastic
		console		wood, metal, and/or plastic
		manuals		wood or plastic
		pedalboard	✓	wood or metal

Reed organ	–	stop controls		plastic or metal
		reeds		brass or steel
		bellows		leather and/or fabric and/or paper
		keyboard		plastic or ivory or wood
Theatre organ	–	stop controls		wood or metal or plastic
		pipes		metal and/or wood
		blower		metal, plastic, and rubber
		console		wood
		manuals		plastic or ivory and wood
		pedalboard		wood and metal
		stop controls		wood, plastic, and/or metal
		percussions	✓	metal, wood, and leather
		traps	✓	metal, wood, leather, and felt

E. Examples of Knowledge Extracted through Multi-Step Zero-Shot Learning

E.1. Entity: Boomerang

Subtype	Subsubtype	Part	(optional)	Material
–	–	–		Wood, plywood, plastic, composite materials, and/or aluminum

E.2. Entity: Eraser

Subtype	Subsubtype	Part	(optional)	Material
–	–	Erasing part		rubber or vinyl
		Sleeve	✓	paper, plastic, and/or metal
		Logo	✓	ink
		Grip	✓	rubber, foam, and/or plastic

E.3. Entity: Bottle opener

Subtype	Subsubtype	Part	(optional)	Material
Waiter's style bottle opener	–	Lever arm		metal or plastic
		Foil cutter	✓	metal
		Bottle opener	✓	metal
		Worm or Spiral		metal
		Hinge		metal
		Handle		metal, plastic, and/or wood
Winged corkscrew	–	Worm		metal
		Levers		metal and/or plastic
		Handle		metal and/or plastic
		Bottle Opener	✓	metal
		Foil Cutter	✓	metal and/or plastic
		Internal Mechanism		metal
Lever corkscrew	–	Handle		plastic or metal

			Lever arms	metal and/or plastic
			Spiral worm	metal
			Body	metal and/or plastic
			Foil cutter	✓ metal
			Bottle grip	plastic and/or metal
			Internal mechanism	metal
Twist-and-pull bottle opener	–		Handle	plastic or metal
			Twist Mechanism	plastic and/or metal
			Gripping Teeth	metal or hard plastic
			Pivot Point	metal
			Lever Arm	metal or plastic
			Internal Mechanism	✓ plastic and/or metal
			Bottle Opener Head	✓ metal
Crown cap lifter	–		Lever arm	metal or plastic
			Cap grip	metal
			Fulcrum	metal
Crown cap lifter	–		Hole for hanging	✓ metal or plastic
			Decoration or brand- ing	✓ paint or sticker
Wall-mounted bottle opener	Lever-actuated wall-mounted bottle opener		Mounting Plate	metal or plastic
			Lever	metal or plastic
			Fulcrum	metal
			Opener Mouth	metal
			Screws	✓ metal
			Internal Mechanism	✓ metal
Wall-mounted bottle opener	Magnetic wall-mounted bottle opener		Magnet	neodymium or ferrite
			Opener Plate	metal
			Mounting Plate	metal, wood, or plastic
			Screws	✓ metal
			Cap Catcher	✓ metal, wood, plastic, and/or magnet
			Decoration	✓ paint, vinyl, or engraving
Wall-mounted bottle opener	Novelty Figurine Wall-Mounted Bottle Opener		Figurine	plastic, metal, or wood
			Mounting Plate	metal or plastic
			Bottle Opening Mechanism	metal
			Screws or Nails	✓ metal
			Internal Mechanism	✓ plastic and/or metal
			Decorations	✓ paint or stickers
Multi-tool bottle opener	Waiter's Friend		Lever Arm	metal or plastic
			Worm	metal
			Foil Cutter	✓ metal
			Bottle Opener	✓ metal
Multi-tool bottle opener	Waiter's Friend		Notch	metal
			Hinge	metal
			Internal Mechanism	metal
Multi-tool bottle opener	Wall-Mounted Multi-Tool Bottle Opener		Mounting plate	metal or plastic
			Lever	metal or plastic
			Bottle opener slot	metal
			Screws or adhesive pad	metal and/or adhesive mate- rial

		Decoration or logo	✓	paint, metal, plastic, or wood
		Internal mechanism	✓	metal
Multi-tool bottle opener	Keychain- Integrated Multi-tool Bottle Opener	Keychain ring		metal
		Bottle opener		metal
		Foldable tools	✓	metal and/or plastic
		Multi-tool body		metal and/or plastic
		Internal mechanism	✓	metal and/or plastic
Multi-tool bottle opener	Multi-Tool Card Bottle Opener	Bottle Opener Slot		Stainless steel or Titanium
		Flat Edge		Stainless steel or Titanium
		Corner Notch	✓	Stainless steel or Titanium
		Ruler Edge	✓	Stainless steel or Titanium
		Screwdriver Tip	✓	Stainless steel or Titanium
Multi-tool bottle opener	Ring-Style Multi-tool Bottle Opener	Ring		metal
		Bottle Opener		metal
		Flathead Screw- driver Tip	✓	metal
Multi-tool bottle opener	Lever-Action Corkscrew Multi-Tool Bottle Opener	Lever arm		metal or plastic
		Spiral worm		metal
		Handle		wood, plastic, and/or metal
		Fulcrum		metal or plastic
		Bottle opener		metal
		Internal mechanism		metal and/or plastic
		Boot lever	✓	metal or plastic
		Foil cutter	✓	metal
		Knife	✓	metal
		Cap lifter	✓	metal

E.4. Entity: Organ (music)

Subtype	Subsubtype	Part	(optional)	Material
Pipe Organ	Electronic pipe organ	Console		wood, plastic, and metal
		Pedalboard		wood and metal
		Bench	✓	wood
		Stops		wood, plastic, or metal
		Internal mechanism		metal, plastic, and wires
		Music rack	✓	wood or plastic
		Swell pedals	✓	wood, metal, and/or plastic
		Power supply		metal, plastic, and wires
Pipe Organ	Theatre organ	Console		wood, metal, and plastic
		Pedalboard		wood and/or metal
		Stops		wood, plastic, or metal
		Manuals		wood, plastic, and/or ivory
		Swell pedals		wood or metal
		Pipes		metal or wood
		Blower		metal and/or plastic
		Internal mechanism		metal, wood, and plastic
		Bench		wood
		Percussion instru- ments	✓	metal, wood, and/or plastic
		Sound effects	✓	metal, wood, and/or plastic

Reed Organ	Pump Organ	Keyboard	wood, plastic, or ivory
		Bellows	wood, leather, and/or cloth
		Stops or Knobs	wood, plastic, or metal
		Pedals	wood or metal
		Windchest	wood or metal
		Pipes	wood or metal
		Internal mechanism	wood, metal, leather, and/or cloth
Reed Organ	Harmonium	Bellows	cloth and/or leather, and wood or metal
		Keys	plastic or wood
		Reed board	wood and metal
		Stops	✓ wood or plastic
Reed Organ	Harmonium	Drones	✓ wood and metal
		Coupler	✓ wood or metal
		External case	wood or plastic
		Internal mechanism	wood, metal, and cloth
Electronic Organ	Theatre organ	Console	wood, metal, and/or plastic
		Pedalboard	wood, metal, and/or plastic
		Bench	wood
		Pipes	metal or wood
		Windchest	wood, metal, and/or plastic
		Blower	metal and/or plastic
		Swell boxes	✓ wood and/or metal
Electronic Organ	Hammond organ	Internal mechanism	wood, metal, and/or plastic
		Manual	plastic or wood
		Drawbars	plastic and metal
		Pedalboard	✓ wood and/or metal
		Bench	✓ wood and/or metal
		Internal mechanism	metal, plastic, and wires
		Music rack	✓ plastic or wood
		Expression pedal	metal and/or wood
Electronic Organ	Digital electronic organ	Case	wood or metal
		Keyboard	plastic and/or wood
		Pedalboard	✓ wood and/or metal
		Stops	plastic, wood, and/or metal
		Music Rack	✓ plastic, wood, or metal
		Bench	✓ wood and/or cushion
		Internal mechanism	metal, plastic, and circuit boards
		Speakers	✓ plastic, metal, and fabric
		Display	✓ plastic, glass, and/or metal
		Power switch	plastic and/or metal
		Volume control	plastic and/or metal
Digital Organ	Digital Keyboard Organ	Keys	plastic or wood
		Body	plastic, wood, or metal
		Display screen	✓ plastic and glass
		Speakers	✓ plastic, metal, and paper
		Power switch	plastic or metal
		Volume control	plastic or metal
		Pedals	✓ plastic, wood, or metal

		Headphone jack	✓	plastic or metal
		MIDI ports	✓	plastic and metal
		Internal mechanism		circuit boards, wires, and various electronic components
Digital Organ	Theatre-Style Digital Organ	Console		wood, plastic, and metal
		Pedalboard		wood and/or metal
		Bench		wood
		Swell Pedals		wood or metal
		Stops and/or Draw Knobs		wood, plastic, or metal
Digital Organ	Theatre-Style Digital Organ	Music Rest	✓	wood, plastic, and/or metal
		Speakers		wood, plastic, metal, and fabric
		Internal Mechanisms		metal, plastic, and electrical components

F. Overview of the Acquired Subtypes, Parts, and Materials

The acquired datasets are hierarchically organized into entities (Wikipedia entries), subtypes, and subsubtypes, with parts and materials. At the most granular level, individual items at the lowest level in the hierarchy are characterized by their constituent parts and materials. If certain items lack subtypes or subsubtypes, the parts and materials associated with the higher-level entity are listed instead.

- **Total items:** The occurrences of items that contain associated parts and/or materials, across all entities.
 - Few-shot: 6,288 items
 - Zero-shot: 27,293 items

F.1. Subtype and subsubtype distribution

- **Entities without subtypes:** the number of entities are classified without distinct subtypes.
 - Few-shot: 1,164 entities
 - Zero-shot: 677 entities
- **Few-shot subtypes**
 - 4,869 total subtypes that are unique across all entities
 - 5,072 total subtypes that are unique per entity
 - 84 unique subsubtypes
 - 4.41 subtypes per entity
- **Zero-shot subtypes**
 - 8,486 total subtypes that are unique across all entities
 - 8,988 total subtypes that are unique per entity
 - 21,336 total subsubtypes that are unique across all entities
 - 22,497 total subsubtypes that are unique per entity
 - 22,788 unique subsubtypes for every entity and each of its subtypes
 - 5.5 subtypes and 13.75 subsubtypes per entity

The difference in the number of unique occurrences of subtypes or subsubtypes is due to overlapping entries. Below is an example of such overlaps:

- Kitchen utensil > Ladle > Soup ladle
- Spoon > Ladle > Soup ladle
- Spoon > Serving spoon > Soup ladle

F.2. Part and material distribution

- **Few-shot items without parts**
 - 189 items (out of 1,164) have no parts
 - 103 subtypes (out of 5,040) have no parts
 - 3 subsubtypes (out of 84) have no parts
- **Zero-shot items without parts**
 - 92 items (out of 677) have no parts
 - 207 subtypes (out of 3,828) have no parts
 - 358 subsubtypes (out of 22,788) have no parts
- **Average number of parts**
 - Few-shot: 4.37 parts per item
 - Zero-shot: 8.14 parts per item
- **Average number of materials**
 - Few-shot: 2.04 materials per item
 - Zero-shot: 2.37 materials per item

G. LLM-Driven Knowledge Mining Evaluation

G.1. Breakdown of Intrinsic Evaluation Results

The tables in this section present a detailed breakdown of MTurk answer combinations for each evaluation category. In most cases, the instances are limited to 1,000 per category for feasibility. The only exception is in the case of precision evaluation for the zero-shot data in the subtype category, where all 1,797 available instances are included instead of sampling down. The total number of unique workers for each evaluation task is as follows: for precision evaluation, there are 10 for Subtype, 7 for Part, and 7 for Material; for recall evaluation, there are 4, 7, and 5 respectively. The tables show the number of workers (shown in parentheses) who selected each answer choice (*Likely*, *Unlikely*, *Unable to answer*, and *Uncertain*), along with the number of questions asked in each category. For example, the “Likely (3)” row indicates unanimous agreement among workers. Other combinations reflect varying degrees of uncertainty or disagreement.

G.1.1. Precision Breakdown

Few-Shot Precision

Answer choices	Subtype	Part	Material
Likely (3)	316	650	641
Likely (2) & Unlikely (1)	13	55	67
Likely (2) & Unable to answer (1)	40	103	99
Likely (2) & Uncertain (1)	5	0	0
Likely (1) & Unlikely (2)	2	19	6
Likely (1) & Unable to answer (2)	25	60	27
Likely (1) & Uncertain (2)	0	0	0
Likely (1) & Unlikely (1) & Unable to answer (1)	1	6	8
Likely (1) & Unlikely (1) & Uncertain (1)	1	1	0
Likely (1) & Unable to answer (1) & Uncertain (1)	3	1	0
Unlikely (1) & Unable to answer (2)	3	1	2
Unlikely (1) & Uncertain (2)	0	0	0
Unlikely (1) & Unable to answer (1) & Uncertain (1)	0	0	0
Unlikely (2) & Unable to answer (1)	1	4	0
Unlikely (2) & Uncertain (1)	0	0	0
Unlikely (3)	1	21	0
Unable to answer (1) & Uncertain (2)	0	0	0
Unable to answer (2) & Uncertain (1)	3	1	0
Unable to answer (3)	16	3	17
Uncertain (3)	0	0	0
Total	430	925	867

Table A9

A breakdown of the responses for the few-shot precision evaluation.

Zero-Shot Precision

Answer choices	Subtype	Part	Material
Likely (3)	1,489	608	759
Likely (2) & Unlikely (1)	76	92	75
Likely (2) & Unable to answer (1)	105	155	88
Likely (2) & Uncertain (1)	18	0	0
Likely (1) & Unlikely (2)	19	27	5

Likely (1) & Unable to answer (2)	33	41	41
Likely (1) & Uncertain (2)	0	0	0
Likely (1) & Unlikely (1) & Unable to answer (1)	20	9	14
Likely (1) & Unlikely (1) & Uncertain (1)	3	0	0
Likely (1) & Unable to answer (1) & Uncertain (1)	0	2	0
Unlikely (1) & Unable to answer (2)	9	6	2
Unlikely (1) & Uncertain (2)	0	0	0
Unlikely (1) & Unable to answer (1) & Uncertain (1)	1	1	0
Unlikely (2) & Unable to answer (1)	7	9	0
Unlikely (2) & Uncertain (1)	0	1	1
Unlikely (3)	6	33	1
Unable to answer (1) & Uncertain (2)	0	0	0
Unable to answer (2) & Uncertain (1)	0	4	0
Unable to answer (3)	11	12	14
Uncertain (3)	0	0	0
Total	1,797	1,000	1,000

Table A10

A breakdown of the responses for the zero-shot precision evaluation.

G.1.2. Recall Breakdown

Few-Shot Recall

Answer choices	Subtype	Part	Material
Likely (3)	8	98	337
Likely (2) & Unlikely (1)	22	125	237
Likely (2) & Unable to answer (1)	15	37	114
Likely (2) & Uncertain (1)	0	0	1
Likely (1) & Unlikely (2)	15	54	105
Likely (1) & Unable to answer (2)	0	23	13
Likely (1) & Uncertain (2)	0	0	0
Likely (1) & Unlikely (1) & Unable to answer (1)	6	34	41
Likely (1) & Unlikely (1) & Uncertain (1)	0	0	0
Likely (1) & Unable to answer (1) & Uncertain (1)	0	1	0
Unlikely (1) & Unable to answer (2)	0	5	4
Unlikely (1) & Uncertain (2)	0	0	0
Unlikely (1) & Unable to answer (1) & Uncertain (1)	0	0	1
Unlikely (2) & Unable to answer (1)	1	8	3
Unlikely (2) & Uncertain (1)	0	0	0
Unlikely (3)	5	23	11
Unable to answer (1) & Uncertain (2)	0	0	0
Unable to answer (2) & Uncertain (1)	0	0	0
Unable to answer (3)	0	4	0
Uncertain (3)	0	0	0
Total	72	412	867

Table A11

A breakdown of the responses for the few-shot recall evaluation.

Zero-Shot Recall

Answer choices	Subtype	Part	Material
----------------	---------	------	----------

Likely (3)	23	486	417
Likely (2) & Unlikely (1)	22	231	291
Likely (2) & Unable to answer (1)	6	135	132
Likely (2) & Uncertain (1)	0	0	0
Likely (1) & Unlikely (2)	12	41	76
Likely (1) & Unable to answer (2)	0	52	40
Likely (1) & Uncertain (2)	0	0	0
Likely (1) & Unlikely (1) & Unable to answer (1)	5	30	29
Likely (1) & Unlikely (1) & Uncertain (1)	0	0	1
Likely (1) & Unable to answer (1) & Uncertain (1)	0	0	1
Unlikely (1) & Unable to answer (2)	0	4	4
Unlikely (1) & Uncertain (2)	0	0	0
Unlikely (1) & Unable to answer (1) & Uncertain (1)	0	0	0
Unlikely (2) & Unable to answer (1)	0	1	5
Unlikely (2) & Uncertain (1)	0	0	0
Unlikely (3)	13	6	4
Unable to answer (1) & Uncertain (2)	0	0	0
Unable to answer (2) & Uncertain (1)	0	0	0
Unable to answer (3)	0	14	0
Uncertain (3)	0	0	0
Total	81	1,000	1,000

Table A12

A breakdown of the responses for the zero-shot recall evaluation.

G.2. Breakdown of Comparative Evaluation Results

Criteria	Response	Score	Number of responses		
			Few	Zero	Human
Category: Subtype					
Familiarity	with most subtypes	+1.0	56	73	30
	with some subtypes	+0.5	12	21	10
	with few subtypes	-0.5	13	21	4
	with none	-1.0	3	2	2
	N/A, no subtypes listed	–	96	63	134
Coverage	comprehensive	+1.0	67	103	34
	missing one	-0.5	7	1	2
	missing two or more	-1.0	17	9	21
	unfamiliar or uncertain	–	4	9	4
Level of detail	appropriate	+1.0	78	99	42
	overly specific	-1.0	3	17	3
	too general or broad	-1.0	0	0	0
	unfamiliar or uncertain	–	3	1	1
Clarity & distinction	well-categorized	+1.0	79	102	45
	some subtypes overlap	-1.0	2	14	0
	unfamiliar or uncertain	–	3	1	1
Consistency in level of detail or style	consistent	+1.0	80	113	45
	inconsistent	-1.0	2	3	0
	unfamiliar or uncertain	–	2	1	1
Category: Part					

Focus on essential parts	all essential parts	+1.0	167	163	139
	some unnecessary parts	-1.0	5	12	2
	unfamiliar or uncertain	–	1	1	4
	N/A, no parts listed	–	7	4	35
Level of detail	appropriate	+1.0	165	171	131
	overly detailed	-1.0	1	4	1
	too general or broad	-1.0	6	0	11
	unfamiliar or uncertain	–	1	1	2
Clarity & distinction	well-identified	+1.0	169	170	140
	correctly no parts listed	+1.0	5	1	16
	incorrectly no parts listed	-1.0	2	3	21
	some parts overlap	-1.0	3	4	1
	unfamiliar or uncertain	–	1	2	2
Consistent level of detail	consistent	+1.0	172	170	141
	inconsistent	-1.0	0	5	3
	unfamiliar or uncertain	–	1	1	1
Category: Material					
Clarity & distinction	well-identified	+1.0	165	154	171
	some materials overlap	-1.0	13	23	4
	unfamiliar or uncertain	–	2	3	5
Aggregate score			1,142	1,222.5	867
Number of rated responses			1,292	1,458	1,019
Mean score			88.39	83.85	85.08

Table A13

Comparison of few-shot, zero-shot, and human-annotated datasets across multiple response categories, showing the number of rated responses and scores based on rating criteria. The table concludes with each dataset’s mean score, calculated as the ratio of the aggregate score to the total number of rated responses.

G.3. Breakdown of External Recall Results

Recall Measured on External Datasets

Target data	Reference data	Full	Half	Missing	Total	Recall (%)
Category: Part						
Few-shot	ParRoT	79	34	58	171	56.14
	CSLB	64	11	31	106	65.57
	McRae	16	2	7	25	68.00
	WordNet	29	16	18	63	58.73
	ConceptNet	23	5	8	36	70.83
Zero-shot	ParRoT	134	32	5	171	87.72
	CSLB	97	6	3	106	94.34
	McRae	23	1	1	25	94.00
	WordNet	48	12	3	63	85.71
	ConceptNet	32	4	0	36	94.44
Category: Material						
Few-shot	CSLB	60	1	9	70	86.43
	McRae	28	1	1	30	95.00
	WordNet	11	1	2	14	82.14
	ConceptNet	14	0	0	14	100.0
Zero-shot	CSLB	68	0	2	70	97.14
	McRae	28	2	0	30	96.67

WordNet	14	0	0	14	100.0
ConceptNet	14	0	0	14	100.0

Table A14

Summary of part and material availability and recall based on external datasets. The table includes the number of parts and materials (ungrouped) from external sources that are categorized as present in the few-shot and zero-shot datasets with full credit (1), half credit (0.5), or missing (0). Most full-credit items fall under ‘exact,’ with specific exceptions: for parts, ParRoT (2 ‘container’, 3 ‘specific’ in few-shot data; 1 ‘specific’ in zero-shot data), CSLB (1 ‘specific’, 1 ‘container’ in zero-shot data), McRae (1 ‘specific’ in zero-shot data), and WordNet (1 ‘container’ in few-shot data). For materials, CSLB (3 ‘other’ in few and 2 ‘other’ in zero-shot data). Recall is calculated as the ratio of available parts to the total number of parts and materials from external datasets.

G.3.1. Inverse Recall Measured on Extracted Datasets

Reference data	Target data	Full	Half	Missing	Total	Recall (%)
Few-shot	ParRoT	72	6	18	96	78.13
	CSLB	53	12	27	92	64.13
	McRae	15	4	49	68	25.00
	WordNet	29	9	43	81	41.36
	ConceptNet	21	7	54	82	29.88
Zero-shot	ParRoT	101	16	45	162	67.28
	CSLB	77	14	51	142	59.15
	McRae	18	9	75	102	22.06
	WordNet	39	17	61	117	40.60
	ConceptNet	24	15	82	121	26.03

Table A15

Summary of part availability and inverse recall for external datasets, measured on few-shot and zero-shot items. The table includes the number of parts (ungrouped) of 20 objects from the extracted datasets that are categorized as present in external datasets with full credit (1), half credit (0.5), or missing (0). Most full-credit items fall under ‘exact,’ with specific exceptions: ParRoT (1 ‘container’, 1 ‘specific’ in few-shot data; 2 ‘specific’ in zero-shot data), and WordNet (1 ‘container’ in few-shot data and zero-shot data each). Inverse recall is calculated as the ratio of the parts available in external datasets to the total number of parts from the extracted datasets.

H. Annotation Guidelines for Part Structures and Materials

1) Check the *Non-physical entity* column if *Item* under the first column is a non-physical entity or is a physical entity with independently functioning parts (e.g., salad bar).

2) Specify the subtypes in the *Subtype* column if some of the subtypes are made of different materials or their part structure is different from one another.

3) If the Wikipedia article specifies a subtype name, please use it possibly without modification. If there are more than one name mentioned for the same subtype and one of them has a Wikipedia article linked to it, please use the linked article's title name. Title names should be case-sensitive and keep any content within parentheses (otherwise, my code won't be able to find the right article). As long as we keep the name correctly, we don't need any special notations for subtypes that exist as a Wikipedia article.

4) For subtypes that aren't mentioned in the articles, try to use pre-noun modifiers in the subtype names like 'lace-less' or 'zippered' instead of prepositions added to the noun.

5) We allow subsubtypes of an item (i.e., when subtypes have their own subtypes) only when the subtype has its own Wikipedia article. We put the item in the first column and its subtype in the *Subtype* column, and create new rows to put the subtype in first column and subsubtypes in the *Subtype* column. For the subtypes that have their own subtypes (i.e., subsubtypes of the main item), leave out any annotations for the subtypes, but fill in the rows for subsubtypes. Please keep the names consistently and again, please do not alter Wikipedia title names.

6) Put asterisks around the parts that are not found in the Wikipedia articles.

7) Check the *Optional* column for any optional parts (e.g., sprinkler attached to the spout of a watering can or a lid on a paper cup).

8) We need to make a distinction among the three types of materials annotated:

A. "Proper materials": Materials that are found in a proper sentence. Any of the following information mentioned in the object's or the subtype's Wikipedia article satisfies *M* to be "Proper materials" for a subtype *S*, an object *O* (a supertype of *S*), and parts *P1* and *P2*. Sentences in past tense are considered as proper sentences as well.

- *O* is made of *M* (e.g., "a cup is made of glass" or "a glass cup")

- *S* is made of *M*

- *P1* of *S* or *O* is made of *M*

- *P2* of *S* or *O* is made of *M*

We allow *M* to be the proper materials for *P1* even when the article mentions *P2* is made of *M*; this is to enable *uniform materials* annotations in 11) below.

B. "Found materials": Materials, other than what's found in A, that are found somewhere in the Wikipedia article.

C. "Inferred materials": Materials that are gathered from inference or googling.

We won't put any conjunctions under these columns, but rather we will put it under the *Conjunction* column. If there is only one material, put "-" instead for a conjunction. Annotating this way, we won't need any asterisks for materials. Just commas.

9) We allow using *entity* under *Predicate* to indicate that the part consists of further parts.

10) We allow using *internal mechanism* as a part.

11) For two or more major parts of an object (e.g., a jacket's body, collar, sleeves & pockets) that are made uniformly of one or alternative materials, please put one of the main parts as the *Part 1* column, check the *Uniform materials* column, and for any other major parts that would have the same materials as listed in the *Proper materials*, *Found materials*, and *Inferred materials* columns, you may leave the material cells empty. For uniform materials to apply, the set of materials under the proper, found, and inferred materials should be repeated exactly for the proper parts. For example, consider a soft pencil case for which *Uniform materials* is checked, along with the following annotation:

- a. Part1: "pouch" – plastic, leather, cotton
- b. Part2: "zipper pull tab" – [empty]
- c. Part3: "zipper" – metal

This means that the zipper pull tab is made of whatever materials that a pouch is made of. If the zipper pull tab can be also made of metal, then the example should be rather,

- b. "zipper pull tab" made of plastic, leather, cotton, metal

and *Uniform materials* shouldn't be checked.

Please use the *Uniform materials* column conservatively so that it is not over-used for non-uniform materials. For instance, if a travel mug's body is made of plastic or stainless steel and its lid is made of plastic or stainless steel, but if it's common for a travel mug to have a stainless-steel body and a plastic lid, then *Uniform materials* shouldn't be checked.

12) Parts and materials can be repeated across different rows. We want to get all the part/material information for a type/subtype just from looking at each row.

13) Use "[A] and/or [B]" to indicate materials for an object that satisfies all of the following:

- entirely made of A
- entirely made of B
- possibly made of a combination of A and B

I. Sample questions on Amazon Mechanical Turk

I.1. Precision

Subtype precision

Is **Bucket hat** commonly considered as a plausible type of **Cap**?

1. Likely.
2. Unlikely because **Bucket hat** is a part of **Cap**.
3. Unlikely for other reasons.
4. Unable to answer because I am not familiar with **Cap**.
5. Unable to answer because I am not familiar with **Bucket hat**.
6. Unable to answer because either **Cap** or **Bucket hat** is named poorly.
7. I am just not sure about anything.

Part precision

Is **single cord** commonly considered as a plausible part of **Staff sling**?

1. Likely.
2. Unlikely because **Staff sling** does not have any parts.
3. Unlikely because **single cord** is rather a feature than a part.
4. Unlikely because **single cord** is a material used in **Staff sling**, rather than a part.
5. Unlikely because **single cord** is often shown/used with **Staff sling**, but **single cord** is not included with or attached to **Staff sling**.
6. Unlikely because **single cord** is irrelevant to **Staff sling**.
7. Unlikely for other reasons.
8. Unable to answer because I am not familiar with **Staff sling**.
9. Unable to answer because I am not familiar with **single cord**.
10. Unable to answer because either **Staff sling** or **single cord** is named poorly.
11. I am just not sure about anything.

Material precision

Is **Grip (of Cup-hilted small sword)** considered to be usually made of **wood, leather or metal**?

1. Likely.
2. Unlikely because at least one substance in **wood, leather or metal** is not used/found in **grip**.
3. Unlikely because **grip** is just as often, or more often, made of something other than **wood, leather or metal**.
4. Unlikely because **wood, leather or metal** is considered a part of **grip**, rather than a material.
5. Unlikely for other reasons.
6. Unable to answer because I am not familiar with **grip** or **cup-hilted small sword**.
7. Unable to answer because I am not familiar with **wood, leather or metal**.
8. Unable to answer because either **grip** or **wood, leather or metal** is named poorly.
9. I am just not sure about anything.

I.2. Recall

Subtype recall

The following is a proposed list of subtypes of '**Compass**'. Is this list complete, i.e., not missing plausible **subtypes of 'Compass'** that have very different parts or usage from those listed?

- Magnetic compass
- Gyrocompass
- Satellite-based electronic compass
- Sundial compass

1. Likely, even though some categories **overlap** with one another.
2. Likely with no issues.
3. Unlikely because I can think of **three or more** major subtypes that are missing from the list.
4. Unlikely because I can think of **two** major subtypes that are missing from the list.
5. Unlikely because I can think of **one** major subtype that is missing from the list.
6. Unlikely for other reasons.
7. Unable to answer because I am not familiar with **Compass**.
8. Unable to answer because I am not familiar with one or more **subtypes**.
9. Unable to answer because either Compass or the subtypes are **named poorly**.
10. I am just not sure about anything.

Part recall

The following is a proposed list of parts of '**Fireplace tongs**'. Is this list complete, i.e., not missing plausible, essential **parts** of 'Fireplace tongs' that have very different purpose/function from those listed?

- Handles
- Hinge
- Gripping Ends
- Rivet or Pivot Pin
- Internal Mechanism

1. Likely, even though some parts **overlap** with one another.
2. Likely with no issues.
3. Unlikely because I can think of **three or more** major parts that are missing from the list.
4. Unlikely because I can think of **two** major parts that are missing from the list.
5. Unlikely because I can think of **one** major part that is missing from the list.
6. Unlikely for other reasons.
7. Unable to answer because I am not familiar with **Fireplace tongs**.
8. Unable to answer because I am not familiar with one or more **parts**.
9. Unable to answer because either Fireplace tongs or the parts are **named poorly**.
10. I am just not sure about anything.

Material recall

The following is a proposed list of materials of '**Storage drawers (of Storage Platform Daybed)**'.
Is this list complete, i.e., not missing any common, plausible **materials** that 'Storage drawers' is usually made of?

- wood, plastic, and/or metal

1. Likely, even though some materials **overlap** with one another.
2. Likely with no issues.
3. Unlikely because I can think of **three or more** major materials that are missing from the list.
4. Unlikely because I can think of **two** major materials that are missing from the list.
5. Unlikely because I can think of **one** major material that is missing from the list.
6. Unlikely for other reasons.
7. Unable to answer because I am not familiar with **Storage drawers**.
8. Unable to answer because I am not familiar with one or more **materials**.
9. Unable to answer because either Storage drawers or the materials are **named poorly**.
10. I am just not sure about anything.

I.3. Dataset-comparison evaluation

Below is the classification provided for the object:

Buzzer

- **Mechanical Buzzer:** Housing (plastic or metal), Diaphragm (metal or plastic), Internal mechanism (metal and/or plastic), Coil (copper wire), Magnet (metal), Terminals (metal), Mounting bracket (metal or plastic)
- **Electronic Buzzer:** Housing (plastic or metal), Internal mechanism (metal and plastic), Sound outlet (plastic or metal), Diaphragm or sounder plate (metal), Coil (wire, typically copper), Electronic circuit (metals and plastic), Contacts or terminals (metal)

Question1

Among the subtypes listed above, I am familiar with:

- ☐ **most** subtypes. ☐ **some** subtypes. ☐ **few** subtypes. ☐ **none**. ☐ N/A, there are no subtypes listed.

Q1. (Optional) Briefly explain.

Question2

In terms of my familiarity, the subtypes listed are:

- ☐ **comprehensive** and cover all aspects. ☐ **missing one** major subtype. ☐ **missing two** or more major subtypes.
- ☐ I am not familiar with the items listed or am unsure. ☐ N/A, there are no subtypes listed.

Q2. (Optional) Briefly explain.

Question3

The level of detail in the subtypes are best described as:

- ☐ **appropriately specific** without unnecessary detail. ☐ **overly specific** and technical.
- ☐ **too general** and lack distinguishing features. ☐ I am not familiar with the items listed or am unsure.
- ☐ N/A, there are no subtypes listed.

Q3. (Optional) Briefly explain.

Question4

Regarding categorization, the listed subtypes are:

- ☐ **well-categorized** subtypes and clearly distinguished. ☐ **overlapping** in some cases, lacking clear distinctions.
- ☐ I am not familiar with the items listed or am unsure. ☐ N/A, there are no subtypes listed.

Q4. (Optional) Briefly explain.

Question5

The descriptions of subtypes, in terms of their level of detail or classification style, are:

- ☐ **consistent.** ☐ **inconsistent.** ☐ I am not familiar with the items listed or am unsure.
- ☐ N/A, there are no subtypes listed.

Q5. (Optional) Briefly explain.

Question6

Regarding categorization, the listed parts are:

- ☐ **well-identified** with clear distinctions.
- ☐ **overlapping** in some cases, either lacking clear distinctions or one being part of another.
- ☐ **appropriate** — no parts are specified, and the object genuinely lacks distinct parts.
- ☐ **incorrect** — no parts are specified, but some should be. ☐ I am not familiar with the items listed or am unsure.

Q6. (Optional) Briefly explain.

Question7

The level of detail in the parts are best described as:

- ☐ **appropriately detailed** and easy to understand. ☐ **overly detailed** and unnecessarily specific.
- ☐ **too general or broad**, missing important distinguishing features. ☐ I am not familiar with the items listed or am unsure.
- ☐ N/A, there are no parts listed.

Q7. (Optional) Briefly explain.

Question8

The listed parts focus solely on essential components, excluding any minor parts (e.g., used for joining, stitching, or dying):

- ☐ Yes, all parts seem **essential**. ☐ No, some of the parts seem **unnecessary** for understanding the main parts.
- ☐ I am not familiar with the items listed or am unsure. ☐ N/A, there are no parts listed.

Q8. (Optional) Briefly explain.

Question9

The descriptions of parts are:

- ☐ **consistent** in their level of detail and balanced. ☐ **inconsistent**, with some parts being more detailed than others.
- ☐ I am not familiar with the items listed or am unsure. ☐ N/A, there are no parts listed.

Q9. (Optional) Briefly explain.

Question10

Regarding categorization, the listed materials are:

- ☐ **well-identified** with clear distinctions.
- ☐ **overlapping** in some cases, either lacking clear distinctions or one being a subset of another.
- ☐ I am not familiar with the items listed or am unsure.

Q10. (Optional) Briefly explain.

Submit