

# Bloom's Revised Taxonomy for Learning Objectives

REMEMBER	UNDERSTAND	APPLY	ANALYSE	EVALUATE	CREATE
To repeat or list <b>information</b> <sup>1</sup> or <b>procedures</b> <sup>2</sup>	To explain, paraphrase, organise, or exemplify <b>information</b> <sup>1</sup> or <b>procedures</b> <sup>2</sup>	To apply <b>procedures</b> <sup>2</sup> , theories or skills to a known or similar <b>situation</b> <sup>3</sup>	To break a complex <b>situation</b> <sup>3</sup> into parts or <b>clusters</b> <sup>4</sup> , and/or to identify what <b>procedures</b> <sup>2</sup> , <b>ideas</b> <sup>7</sup> or relationships are applicable.	To assess <b>information</b> <sup>1</sup> , <b>procedures</b> <sup>2</sup> , tools, processes, skills, and/or <b>products</b> <sup>5</sup> on their <b>quality</b> <sup>6</sup> and/or significance in order to reach a conclusion, advice, decision, or proof.	To create original <b>ideas</b> <sup>7</sup> , <b>procedures</b> <sup>2</sup> , tools, or <b>products</b> <sup>5</sup>

<sup>1</sup>**Information** e.g. facts, terms, definitions/concepts, ideas, theories

<sup>2</sup>**Procedures** e.g. formulas, techniques, procedures, methodologies, rules, experiments, analyses

<sup>3</sup>**Situations** e.g. problem, experiment, data, process, research question, literature, list of specifications, computer program, or other information

<sup>4</sup>**Parts or clusters** e.g. causes and consequences, advantages and disadvantages, motives, stakeholders, and relations

<sup>5</sup>**Products** e.g. computer programs, designs, data, products, list of specifications, literature

<sup>6</sup>**Quality** e.g. reliability, validity

<sup>7</sup>**Ideas** e.g. ideas, theories, hypotheses, opinions, research questions

Example	Example	Example	Example	Example	Example
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The student is able to **list** the steps in the following methods of analysis: interpolation and classification.

The student is able to **explain** the movement of bony segments of the human skeleton system.

The student is able to **calculate** the shear and bending moment resistance of pre-stressed concrete structures.

The student is able to **derive** equations describing the steady-state performance of the vehicles discussed during the course.

The student is able to **evaluate** the quality of the collected data.

The student is able to **design** systems engineering solutions through the use of requirements analysis and conceptual designs.

Verbs	Verbs	Verbs	Verbs	Verbs	Verbs
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**Reproduce:**  
Duplicate, List, Repeat, Reproduce

**Find/identify in e.g. a figure:**  
Identify<sup>AN</sup>, Label, Locate, Name, Recognise, Recall

**Give explanation:**  
Discuss<sup>AN, EV</sup> Explain<sup>EV</sup>

**Give examples:**  
Give examples, Illustrate<sup>AP, CR</sup>

**In other words:**

Define, Paraphrase, Rephrase, Restate, Summarise

**Organise information**

Categorise<sup>AP, AN</sup>, Compair<sup>AN</sup>, Contrast<sup>AN</sup>, Order<sup>AN</sup>, Organise<sup>AP, AN</sup>

**Apply general:**  
Apply, Administer, Develop<sup>CR</sup>, Employ, Perform, Use, Implement, Make use of

**Apply knowledge:**  
Categorise<sup>UN, AN</sup>, Link<sup>AN</sup>

**Apply specific procedures/skills:**

Assemble, Calculate, Compile<sup>CR</sup>, Correlate<sup>AN</sup>, Construct<sup>CR</sup>, Evaluate, Experiment<sup>CR</sup>, Illustrate<sup>UN, CR</sup>, Interview, Simulate, Solve<sup>AN, EV, CR</sup>

**Analyse in general:**  
Analyse, Appraise<sup>EV</sup>, Estimate, Examine, Inspect, Investigate, Research, Simplify<sup>CR</sup>, Solve<sup>AP, EV, CR</sup>

**Divide:**

Breakdown, Categorise<sup>UN, AP</sup>, Discriminate, Dissect, Divide, Isolate, Prioritise<sup>EV</sup>, Order<sup>UN</sup>, Organise<sup>UN, AP</sup>

**Arguments (one sided):**

Criticise<sup>EV</sup>, Debate<sup>EV</sup>, Discuss<sup>UN, EV</sup>, Focus, Highlight, Motivate, Point out, Reason<sup>EV</sup>

**Relationships:**

Compair<sup>UN</sup>, Contrast<sup>UN</sup>, Correlate<sup>AP</sup>, Infer<sup>EV</sup>, Link<sup>AP</sup>, Model<sup>CR</sup>, Rank, Relate, Reorganise

**Select applicable procedure/theory/skill:**

Choose<sup>EV</sup>, Identify<sup>UN</sup>, Model, Select<sup>EV</sup>, Simplify

**Taking into consideration:**  
Consider, Deduct, Reason<sup>AN</sup>, Value

**Working towards a conclusion\*:**  
Appraise<sup>AN</sup>, Assess, Award, Evaluate, Grade, Mark, Rate, Reason<sup>AN</sup>, Score, Solve a problem<sup>AP, AN, CR</sup>

**Reaching a conclusion\*:**

Advise, Choose<sup>AN</sup>, Conclude, Decide, Determine, Judge, Prioritise<sup>AN</sup>, Select<sup>AN</sup>

**Defending a conclusion\* (or not):**

Argue, Convince, Criticise<sup>AN</sup>, Debate<sup>AN</sup>, Disprove, Dispute, Influence, Justify, Persuade, Prove, Reason<sup>AN</sup>, Recommend, Support, Validate

**Discuss consequences/significance of conclusion\*:**  
Discuss<sup>AN, UN</sup>, Explain (results, consequences for stakeholders, society, etc.)<sup>UN</sup>, Induce, Infer<sup>AN</sup>,

\*conclusion can also be a recommendation, decision or proof

**Make something new:**  
Compose, Create, Design, Develop<sup>AP</sup>, Discover, Experiment<sup>AP</sup>, Invent, Plan

**Change something:**

Adapt, Change, Innovate, Modify, Reframe, Revise, Simplify<sup>AN</sup>, Substitute, Transform

**Add something:**

Add to, Elaborate, Extend

**Improve something:**  
Improve, Maximise, Minimise

**Combine some things:**  
Combine, Compile<sup>AP</sup>, Integrate

**New ideas:**  
Formulate, Hypothesise, Originate, Propose, Speculate, Suggest, Theorise

**Construct:**  
Construct<sup>AP</sup>, Illustrate<sup>UN, AP</sup>, Draw, Visualise

**Other:**  
Model<sup>AN</sup>, Solve<sup>AP, AN, EV</sup>, Program

UN, AP, AN, EV, CR Some verbs can be used in multiple levels of the taxonomy. This is indicated with the superscripts: UNderstand, APply ANalyse, EValuate or CReate.

The verbs used in this document are a selection of the possibilities. You can also use other verbs.

Products	Products	Products	Products	Products	Products
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Definition  
Fact  
Label

List  
Reproduction  
Quotes

Categorisation  
Collection  
Closed questions (e.g. true/false, multiple choice)

Examples  
Explanation  
Outline  
Summary  
Derive a wiki entry

Demonstration (e.g. video)  
Illustration  
Interview  
Performance  
Presentation

Role play  
Simulation  
Use formulas, programs, rules, procedure, techniques

Abstract Analysis of a case/situation  
Case presentation  
Chart  
Checklist  
Discussion of the (quality of) results'

Graph  
Observation of professional practice  
Peer feedback  
Report  
Spreadsheet  
Survey

Advise  
Case presentation  
Comment  
Conclusion  
Discussion/debate  
Essay  
Evaluation

Computer program  
Design plan/  
blueprint/  
scheme/drawings

Paper  
Plan  
Portfolio  
Project  
Prototype  
Research proposal