

Simple ATL Project Ideas For Students

Here are the new ATL Project Ideas For Students in 2026

ATL Project Ideas for Class 6

1. Build a working model of solar cooker using cardboard and foil
2. Make a simple water filter using sand gravel and activated charcoal
3. Create a hand-powered torch without using any store-bought battery
4. Design a scarecrow robot that moves when wind blows
5. Build a mini greenhouse from plastic bottles for balcony gardens
6. Make a rain gauge from recycled plastic bottle and ruler
7. Create a simple alarm system using copper wire and buzzer
8. Design a seed germination tracker with daily photo documentation
9. Build a working periscope using mirrors and cardboard box
10. Make a manual water pump from PVC pipe for rural areas
11. Create a shadow clock that tells time using sunlight
12. Design a floating bridge model using ice cream sticks
13. Build a mini windmill that charges a small LED light
14. Make a paper bridge strong enough to hold 500 grams
15. Create a model showing how earthquake-resistant buildings work
16. Design a bird feeder with automatic refill using gravity
17. Build a simple telegraph system between two classrooms
18. Make a working model of water conservation for rooftops
19. Create a lemon battery and power a small LED bulb
20. Design a model dam with spillway using clay and sand
21. Build a hand sanitizer dispenser without touching the bottle
22. Make a weather station that records temperature humidity and rain
23. Create a fire alarm prototype using thermistor and buzzer circuit
24. Design a noise pollution meter for school corridors
25. Build a model showing how biogas is produced from kitchen waste
26. Make an air quality checker using simple homemade sensor
27. Create a working model of a well with pulley system
28. Design a magnetic door lock system for classroom cupboard
29. Build a solar-powered phone charger using small solar panel
30. Make a model showing tidal energy generation at coastline
31. Create a working traffic signal using LED lights and timer
32. Design a robot hand that grips objects using cardboard fingers
33. Build a mini hydro turbine that works in running tap water
34. Make a soil testing kit to check pH of garden soil
35. Create a wall crack detector using simple electrical circuit
36. Design a water level indicator for overhead tank at home
37. Build a musical instrument from waste material found at home
38. Make a potato battery and compare voltage with lemon battery
39. Create a model showing how submarine uses buoyancy to float
40. Design a simple Braille reader model for visually impaired students
41. Build a rotating platform that demonstrates centripetal force clearly

42. Make a homemade compass using magnetized needle and water
43. Create a model of digestive system using household pipes and bags
44. Design a classroom dust collector using fan and wet cloth
45. Build a working toy car powered by balloon air pressure
46. Make a model showing pollution difference between cities and villages
47. Create a smart plant watering system using cotton wick method
48. Design a paper aeroplane launcher using rubber band mechanism
49. Build a colour-mixing experiment box using torches and filters
50. Make a working lift model using thread spool and motor

ATL Project Ideas for Class 7

51. Build a solar-powered boat that moves across water tub
52. Design a working hydraulic crane using syringes and plastic tubes
53. Create a smart dustbin that opens lid when hand waves
54. Make a braille labelling machine for school notebooks using pins
55. Build a water ATM prototype for clean drinking water access
56. Design a flood alert system using water sensor and buzzer
57. Create a mini weather balloon using lightweight gas and camera
58. Make a solar still that converts dirty water into drinking water
59. Build a pressure-based weighing machine using water-filled balloons
60. Design a model showing how tectonic plates cause earthquakes
61. Create a fire extinguisher model using baking soda and vinegar
62. Make a remote-controlled car using mobile Bluetooth and Arduino
63. Build a temperature-based fan speed controller using thermistor circuit
64. Design a model lung that shows breathing mechanism with balloons
65. Create a crop irrigation system triggered by soil moisture sensor
66. Make a smart helmet prototype with accident detection and alert
67. Build a mini desalination unit using heat and condensation process
68. Design a water wheel that generates electricity from flowing water
69. Create a street light that turns on automatically after sunset
70. Make a working escalator model using motor and rubber belt
71. Build a telescope using lenses and PVC pipe at home
72. Design a water-powered calculator using falling water kinetic energy
73. Create a prototype of speed breaker that generates electricity
74. Make a model showing how black holes bend light path
75. Build a drainage cleaning robot for blocked pipes in cities
76. Design a wall painting drone prototype using small spray mechanism
77. Create a heartbeat monitor using LED and light sensor circuit
78. Make a mechanical hand that mimics all five finger movements
79. Build an earthquake-resistant structure and test it on shaker table
80. Design a sand filter system for purifying river water samples
81. Create a model urban garden using recycled bottles on walls
82. Make a portable classroom kit for children in flood zones
83. Build a solar-powered water heater using black painted pipes
84. Design a smart school bag with weight alert for children
85. Create a musical instrument that plays notes using water glasses
86. Make a two-way radio communication system using simple electronics

87. Build a model showing how nuclear reactor generates electricity safely
88. Design a bio-inspired robot leg that walks like a cockroach
89. Create a bridge model that holds maximum load with minimum material
90. Make a smart window that opens when room temperature increases
91. Build a pollution absorbing panel using plants and activated charcoal
92. Design a prototype drone that drops medicines in remote villages
93. Create a sign language to text converter using flex sensors
94. Make a model showing how GPS satellite navigation system works
95. Build a smart irrigation canal model with automatic gate control
96. Design a model ocean current generator using temperature difference
97. Create a foldable wheelchair prototype for narrow Indian doorways
98. Make a tidal energy collector model using wave motion mechanism
99. Build a smart mirror that shows time and temperature together
100. Design a working hovercraft using balloon and CD disc base

ATL Project Ideas for Class 8

101. Build a lie detector prototype using galvanic skin response sensor
102. Design a voice-controlled home automation system using Arduino board
103. Create a brainwave-controlled toy using EEG headset and motor
104. Make an automatic railway gate that closes when train approaches
105. Build a smart water meter that sends SMS when overflowing
106. Design a crop disease detection app using phone camera input
107. Create a prosthetic arm that responds to muscle signal impulse
108. Make a solar-powered electric fence for farmer field protection
109. Build a mini submarine that dives using motorised ballast tank
110. Design a pothole detection device for roads using vibration sensor
111. Create a working jetpack model using compressed air mechanism
112. Make a smart traffic system that prioritises ambulance movement
113. Build a biometric attendance system using fingerprint scanner module
114. Design a model Mars rover with remote obstacle avoidance feature
115. Create an automatic book sorting robot for school library shelves
116. Make a 3D printer using syringe and motorised XY axis platform
117. Build a fire-fighting drone that carries water and sprays remotely
118. Design a model of maglev train using permanent magnet track
119. Create a smartwatch prototype that monitors pulse and body temperature
120. Make a plastic shredder machine that converts bottles into thread
121. Build an IoT-based air quality monitor with real-time display
122. Design a working seismograph using pendulum and rotating paper drum
123. Create a model showing how ISRO satellite gets deployed from PSLV
124. Make a talking glove that converts sign language to audio output
125. Build a non-invasive blood glucose estimator using infrared sensor
126. Design a smart parking system using ultrasonic sensors and LEDs
127. Create a water leak detection system for apartment building pipes
128. Make a bicycle dynamo setup that charges phone while cycling
129. Build a seed sowing robot that plants seeds in straight rows
130. Design a model zero-energy building using passive cooling techniques
131. Create a flood prediction model using rainfall data and sensors

132. Make a food expiry checker using smell sensor and display
133. Build a smart medicine cabinet that alerts for missed doses
134. Design a sound-powered phone using no electricity at all
135. Create a self-balancing robot using gyroscope and motor feedback
136. Make a mini EV prototype with regenerative braking system model
137. Build a crop spraying drone prototype with programmable spray zones
138. Design a talking ATM interface prototype for visually impaired users
139. Create a model showing how DRDO missile guidance system works
140. Make a home security robot that patrols and captures movement
141. Build a 3D topographic map of India using layered cardboard
142. Design a solar dehydrator for drying fruits without electricity
143. Create a smart school uniform tracker to detect student presence
144. Make a prototype of SpaceX-style reusable rocket landing system
145. Build an auto-cooling jacket using peltier effect and small fan
146. Design a model water desalination plant using solar evaporation
147. Create a smartphone-controlled robotic arm for bomb disposal simulation
148. Make a vertical axis wind turbine for urban rooftop installation
149. Build a model showing how India's UPI payment system works
150. Design a low-cost ECG machine prototype using Arduino and electrodes

ATL Project Ideas for Class 9

151. Build a neural network demo that recognises handwritten digit cards
152. Design an AI chatbot for school FAQ using simple decision tree
153. Create a working humanoid robot arm with five servo motors
154. Make a plant disease identifier using Raspberry Pi and camera
155. Build a smart village model with solar water IoT drainage
156. Design a low-cost dialysis machine prototype for rural hospital use
157. Create a voice assistant for elderly that controls home appliances
158. Make a gesture-controlled wheelchair for quadriplegic patients in India
159. Build a machine learning model that predicts student exam performance
160. Design an exoskeleton hand prototype for stroke rehabilitation exercises
161. Create a drone that surveys crop health using NDVI calculation
162. Make a brain-computer interface toy controlled by concentration level
163. Build a smart grid model that balances solar and grid power
164. Design a self-driving car model using camera and line tracking
165. Create a working spectrometer to identify materials by light absorption
166. Make a 3D-printed prosthetic leg for amputees using recycled filament
167. Build a model showing how DRDO ASAT missile tracking system works
168. Design a quantum cryptography demo using polarised light experiment
169. Create a road accident alert system using impact sensor and GPS
170. Make a portable ECG device that sends data to doctor remotely
171. Build a model fusion reactor explaining plasma confinement using magnets
172. Design an underwater ROV that captures photos of river floor
173. Create a smart traffic helmet that detects drunk driving in real time
174. Make a haptic feedback glove for virtual reality interaction experience
175. Build an IoT greenhouse that auto-adjusts light water and temperature
176. Design a model showing how India's Chandrayaan-3 landed on moon

177. Create a swarm robotics demo where three robots complete task together
178. Make a low-power hearing aid prototype using amplifier and microphone
179. Build a smart bridge health monitor using strain gauge sensors
180. Design a plastic-to-fuel reactor model using pyrolysis heating method
181. Create an AI model that detects forest fires from satellite imagery
182. Make a prototype surgical robot that cuts with millimetre-level precision
183. Build a model hyperloop pod using magnetic levitation and vacuum
184. Design a wearable fall detector for old people living alone
185. Create a water quality analyser that measures TDS pH and turbidity
186. Make a smart food delivery robot that navigates school campus alone
187. Build a model DNA sequencer showing how genome reading process works
188. Design a wireless electricity transfer demo using resonant coil coupling
189. Create a robotic fish that monitors underwater pollution levels continuously
190. Make a prototype of lab-on-chip diagnostic device for malaria detection
191. Build a solar roadway tile that generates power from foot traffic
192. Design a 4D printing demo showing shape memory polymer behaviour
193. Create a smart canal lock system for water conservation in agriculture
194. Make a bioprinting demo using hydrogel and syringe to print layers
195. Build a model quantum computer gate using polarised light and mirror
196. Design an AI tutor that adapts question difficulty based on performance
197. Create a neural interface prototype that reads hand gesture EMG signals
198. Make a model carbon capture machine using algae bioreactor concept
199. Build a holographic display prototype using transparent film and projector
200. Design a model moon base showing life support and power systems

ATL Project Ideas for Class 10

201. Build a full autonomous drone that maps school campus in 3D
202. Design a working EEG headset that detects stress level patterns
203. Create an AI-powered legal assistant for RTI filing help
204. Make a portable dialysis machine prototype for off-grid village hospitals
205. Build a blockchain-based school certificate verification system demo
206. Design a model tokamak fusion reactor with rotating plasma simulation
207. Create a satellite communication model using two Arduino radio modules
208. Make a neural prosthetic hand that learns grip from muscle memory
209. Build a smart city model with 12 integrated IoT sensor systems
210. Design a CRISPR gene editing animation and working model demo
211. Create a full-stack health monitoring wearable with cloud data sync
212. Make a model particle accelerator using magnets and rolling ball tracks
213. Build a low-cost MRI-like machine using coil and signal processing
214. Design a model India-specific wildfire prediction using weather data
215. Create a quantum key distribution demo using fibre optic laser setup
216. Make a working lidar sensor using laser and time-of-flight module
217. Build a humanoid robot that plays chess using computer vision
218. Design a smart prosthetic leg that adapts to terrain in real time
219. Create a deep learning model that diagnoses tuberculosis from X-rays
220. Make a model gravitational wave detector using laser interferometry concept
221. Build an automated aquaponics system with fish and vegetable growing

222. Design a model nuclear submarine power plant with shielding mechanism
223. Create a real-time sign language interpreter using MediaPipe and Python
224. Make a portable water-from-air device using desiccant and condensation
225. Build a model showing how ISRO NavIC navigation system outperforms GPS
226. Design a thermal imaging camera using low-cost infrared sensor array
227. Create a working model of India's Agni missile guidance and propulsion
228. Make an AI dermatologist that identifies skin disease from phone photos
229. Build a closed-loop insulin delivery prototype using glucose sensor
230. Design a model showing how large language models process text input
231. Create a synthetic aperture radar demo using two antennas and signal
232. Make a haptic suit demo that lets user feel virtual objects online
233. Build a model anti-satellite weapon explaining orbital mechanics involved
234. Design a biomimetic wing that flaps like dragonfly for microdrone use
235. Create a portable spectrometer that identifies soil nutrients in field
236. Make a model quantum dot solar cell using colloidal synthesis
237. Build a smart waste segregation robot using computer vision at conveyor
238. Design a working magnetohydrodynamic drive model for silent submarine
239. Create a model India-Pakistan border surveillance system using sensor grid
240. Make a prototype tele-surgery system with robot arm and remote control
241. Build a model space elevator using Kevlar thread and counterweight
242. Design an AI that writes personalised NCERT study plan for students
243. Create a working model of thorium reactor India's future energy source
244. Make a model anti-drone system using net cannon and tracking radar
245. Build a soft robot prototype that squeezes through narrow pipe openings
246. Design a model ocean thermal energy conversion plant for coastal India
247. Create a prototype Indian sign language keyboard for typing in ISL
248. Make a model showing how Neuralink-style BCI records neural activity
249. Build a full renewable microgrid model for electrifying remote village
250. Design a working model of hypersonic glide vehicle aerodynamics and control