

UPGRADE to the Bundle

Crash Course KIDS

5 Episode Series Bundle

✓ Classroom Ready - Just Print and Go!

✓ Active Engagement - Keep Students' Attention

✓ Direct Video Link Included

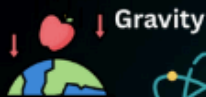
WATCH VIDEO



Food
Chains



Engineering



Gravity



Matter



Space

Includes Student Copy
and Answer Keys

Crash Course Kids - Engineering Compilation

Name: _____ Date: _____
You can access the video here: <https://youtu.be/gjGmMgJ5Rk>

Intro (0:00)
1. The Crash Course Kids Compilation video focuses on helping us understand _____ and the engineering process.

What's an engineer? (0:22)

2. An engineer is someone who designs and builds that help solve a specific problem.
3. Civil engineers design and construct buildings, roads, and _____.
4. Electrical engineers design electrical systems like _____ and _____.

The Engineering Process (0:32)

5. The engineering process starts with defining the _____.
6. A _____ is a simple model that lets you test _____.
7. In the engineering process, after testing, engineers _____ what works and what doesn't.

Defining the Problem (0:38)

8. Engineers ask a lot of _____ in order to define the problem.

Success = What & Causes (1:30)

9. When engineers define success, they identify _____.
10. A _____ that meets all or most of the criteria.

A Case of What-If (1:52)

11. Engineers use the _____ process to come up with a solution.
12. A _____ is a condition or value that can be changed.
13. Some variables, like gravity, are _____ and cannot be changed.
14. Engineers can control variables like the _____.
15. Asking _____ questions helps engineers plan.

Crash Course Kids - Engineering Compilation KEY

Intro (0:00)

1. The Crash Course Kids Compilation video focuses on helping us understand engineering and the engineering process.

What's an engineer? (0:22)

2. An engineer is someone who designs and builds machines, systems, or structures that help solve a specific problem.
3. Civil engineers design and construct buildings, roads, and bridges.
4. Electrical engineers design electrical systems like circuits and computer chips.

The Engineering Process (0:32)

5. The engineering process starts with defining the problem.
6. A prototype is a simple model that lets you test out your design.
7. In the engineering process, after testing, engineers must evaluate their solutions to see what works and what doesn't.

Engineering Games (2:27)

16. The way something turns out, like whether a solution solves the problem, is called an outcome.
17. In the marshmallow game, engineers can control the _____ of the launch and how far they _____ the string.
18. Engineers change only _____ variable at a time during testing to be sure of the results.

Ready, Set, Robot! (2:37)

19. A variable that cannot be changed, like the depth of a storm drain, is called a _____ variable.
20. When engineers test their robot designs, they decide and test _____ variable(s) at a time.
21. If the robot crashes when trying to carry the phone, that point is called a _____ point.

Architecture Adventure (2:36)

22. Engineers who design buildings are called architects.
23. The _____ of the tree house and the _____ it weighs are important variables when building one.
24. A failure point when building the tree house could happen if the _____ is too heavy for the _____.
25. To reduce noise inside the tree house, variables like the number and thickness of _____ are tested.

Engineering Games (2:27)

16. The way something turns out, like whether a solution solves the problem, is called an outcome.
17. In the marshmallow game, engineers can control the angle of the launch and how far they pull back the string.
18. Engineers change only one variable at a time during testing to be sure of the results.

Ready, Set, Robot! (2:37)

19. A variable that cannot be changed, like the depth of a storm drain, is called a fixed variable.
20. When engineers test their robot designs, they decide and test one variable at a time.
21. If the robot crashes when trying to carry the phone, that point is called a failure point.

Architecture Adventure (2:36)

22. Engineers who design buildings are called architects.
23. The size of the tree house and the weight it weighs are important variables when building one.
24. A failure point when building the tree house could happen if the tree house is too heavy for the tree.
25. To reduce noise inside the tree house, variables like the number and thickness of blankets are tested.

25 Questions

Answer Key
Included

Save 85% per worksheet!