

Chicken Run Scavenger Hunt

Fairplay Sleepover 2004

How many eggs does a rooster lay in one month?
What examples of technology were present at the farm?
How many clocks did you see?
What does Babs pull out of her purse?

Give at least one example of a principle of **SCAMPER** (Substitute, Combine, Adapt, Minimize/Magnify, Put to other uses, Eliminate/Elaborate, Reverse/Rearrange) being used by the chickens.

Lab Notebooks:

How important are records in the movie? Identify one example in your own notebook.
How important are sketches for conveying an idea? Give one example.

Electricity:

Identify at least one example of a simple circuit with a switch.
What type of circuit are the Christmas Lights?

Simple Machines:

Give at least one example of each of the following simple machines:
Pulley, Wheel and Axle, Inclined Plane, Wedge, 1st, 2nd, and 3rd Degree Levers

Design Process:

How many of the following parts of the Design Process did you see in the movie? Identify one by sketch or words.

Identify Design Opportunity
Research Design Opportunity
Brainstorm Possible Solutions
Design Brief
Research your Solution
Refine your Solution
Prepare Requirements and Technical Drawings
Build Models and Component Parts
Build the Prototype
Test
Evaluate
Revise

Materials Properties:

Give at least one example of a case where each of these material properties would be useful:

Property	Definition
Density	How heavy objects are that occupy the same volume
Ductility	How easily a material stretches when force is applied
Strength	How much weight a material can hold without failing or breaking
Fatigue	How easily a material withstands repeated stresses
Electrical conductivity	Whether or not electricity passes through the material
Thermal conductivity	How easily heat passes through the material
Optical properties	How easily light passes through it (transparent, translucent, opaque) or bounces off it
Corrosion	If the material degrades easily because of the physical environment
Elasticity	How easily does the material rebound after the load is removed?