



Making Science
Make Sense®

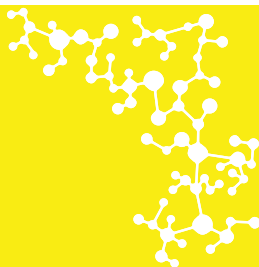
WHICH WAY DO ROOTS GROW AND WHY?

MATERIALS:

- A DRIED LIMA BEAN
- COTTON BALLS
- CLEAR JAR WITH A LID
- WIRE
- TAPE
- WATER
- BOWL

PROCEDURE:

1. Soak the bean in water for a day. Then push a wire into it.
2. Fix the wire to the lid of the jar using tape.
3. Put a number of wet cotton balls in the jar, put in the bean and close the jar. Be sure that you can still see the bean in the jar.
4. Lay the jar on its side, and leave it for a few days until a root begins to grow down.
5. Then turn the jar so the roots point upward. After a few days, what happens?








WHAT THIS MEANS:

Like people, plants are affected by **gravity**, so they do know which way is up and which way is down. This is why, when you turned the jar upside down, the roots began growing downward again.

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