# Investigation 1: Modelling a packet of chips

Scientists use models to examine and make predictions about how substances behave.

**1) Examine your model of chip packets. Write down your observations in the table below.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Bag of chips (no air) | Bag of water | Bag of air |
| Press on one end of the bag with a flat hand |  |  |  |
| Gently press on the whole bag with a flat hand |  |  |  |
| Heavily press on the whole bag with a flat hand |  |  |  |

**2) Use modelling to explain each of your observations.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Bag of chips (no air) | Bag of water | Bag of air |
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| Heavily press on the whole bag with a flat hand |  |  |  |

**3) Answer the following questions.**

1. Did the chips change their shape when you placed them in the bag?
2. Did the water change its shape when you pressed on it?
3. Did the air change its shape when you pressed on it?
4. Was water able to be compressed (squashed) without bursting the bag?
5. Was the air able to be compressed (squashed) without bursting the bag?
6. Why do you think air is added to packets of chips instead of water?