# A Sketchbook Challenge

# How Much Does A Cloud Weigh?

**To accompany the launch of the AccessArt Sketchbook Journey, we are pleased to share How Much Does A Cloud Weigh?**

**How Much Does A Cloud Weigh? is a sketchbook challenge aimed at all ages and abilities. We'd like to invite you to make a creative response to that question, in whatever way you wish, using sketchbooks as a way to help you explore.**

**Our first instinct, when we hear that question, might be to google it, and to be fair, google has some very interesting answers. BUT! Let\'s take the time to remember we can respond to that question or provocation in so many ways, with so many filters. This is your opportunity to use sketchbooks as a way to discover your most creative response!**

**Tag your sketchbook pages #HowMuchDoesACloudWeigh #sketchbookchallenge @accessartorguk (instagram) @accessart (facebook & twitter)**

**So, make yourself a dedicated "How Heavy is a Cloud?" sketchbook, and remember: Be Journeyful!**

# How Will You Kick Starting Your Sketchbook Journey? Teachers might like to take a look at our Sketchbook Pathway below

## Open Out

**Which lens will you choose to explore the question through? Will you think like a painter, a poet, a maker, a scientist, a film-maker, a geographer – or a combination of those?**

**Find out how to open up the question with your pupils before you begin to explore.**

## Energy

**Use the "energy of the group," guided by you the facilitator, to expand how we understand the question. Read More**

# Play

**Creativity happens when elements collide, and we are given time and space to play with those elements. Let sketchbooks encourage you to blur lines between subject areas. Read More**

# Journey

**Everyone is on their own exciting sketchbook journey. Teachers can help spot opportunities and encourage pupils to branch off. Read More**

# Momentum

**Remember the sketchbook is just a tool which helps encourage explorative thinking. Some of the discoveries will happen in the sketchbook, but many discoveries will happen "outside" the sketchbook, but as a result of it. Read More**

# A Few Clues…


Cloud watcher spotting dancers in the clouds

https://headsup.scoutlife.org/how-much-does-a-cloud-weigh/

According to scientists, the weight of the average cumulus cloud is **1.1 million pounds!** Think about that for a moment. This means that at any given moment, there are millions of pounds of water floating above your head. That's the equivalent of 100 elephants.

https://headsup.scoutlife.org/how-much-does-a-cloud-weigh/

So, how does that much weight stay afloat? For one thing, the weight is spread out into millions of droplets over a really big space. Some of the droplets are so small that you would need a million of them to make a single raindrop.

**A Smaller Focussed Challenge:**

- **Go and find a scientific way to answer the question**
- **Place a mirror on the grass and draw the clouds you see in the reflection**
- **Imagine you are sat within a very heavy raincloud, high above the earth. What can you hear? What kind of sounds might surround you? Write words or record sounds**
- **Make a cloud from things you find around you. Capture a feeling of weightlessness. Suspend your sculpture**

**Purposely throw in some distractions or red herrings? Do they disrupt thinking (in a good way?)**

**But are they red herrings?**

Iron Pyrite cubes

Exploring mark making

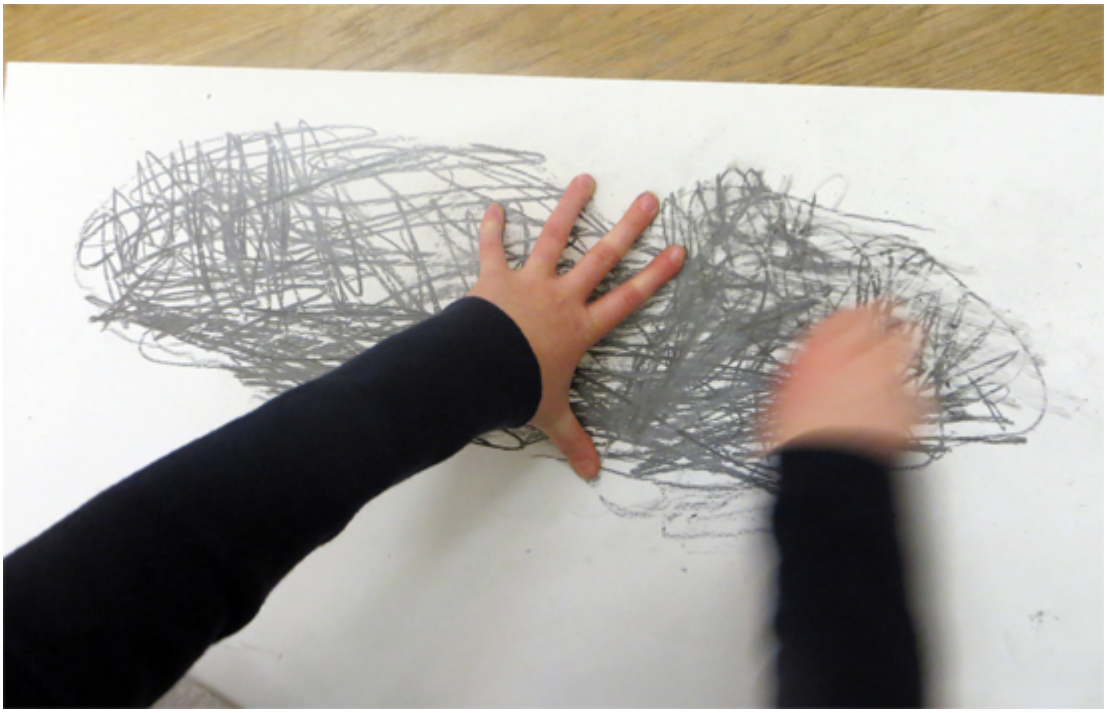
Stylised Japanese clouds

Dutch artist Berndnaut Smilde’s sculptures of clouds last 10 seconds or less. How much does the cloud weigh in the photograph? How does the cloud feel in your memory?

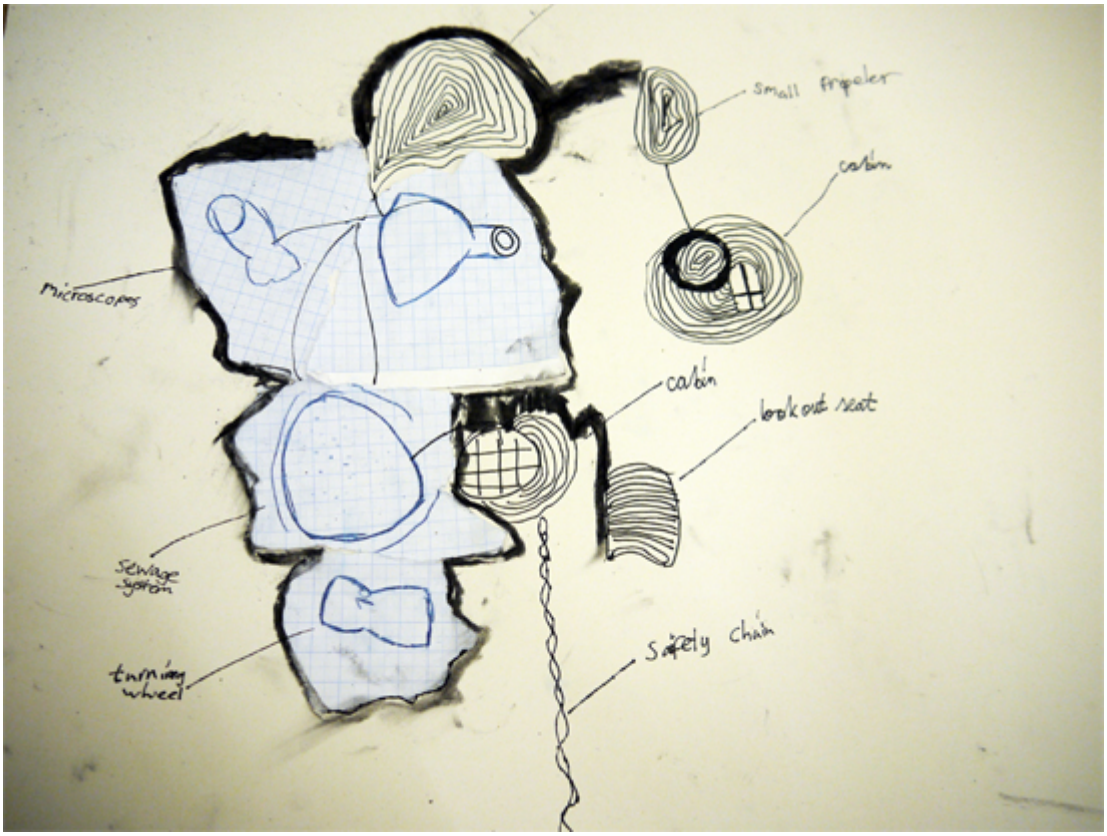
> ***“There is only one stupid question in this world, and that is the question which doesn’t get asked” Proverb***

**Re-shape the question until it resonates – look at it upside down, inside out…**

**How heavy is a cloud to YOU?**
**How heavy is THAT cloud?**
**Can you carry that cloud?**
**Could you hold that cloud?**
**How LIGHT is a cloud?**
**How does that heavy cloud make you feel?**
**How do YOU experience CLOUD?**



What kinds of marks can you use to create a really angry, heavy cloud?




Can you invent a cloud weighing device inspired by things you\’d find in the kitchen?

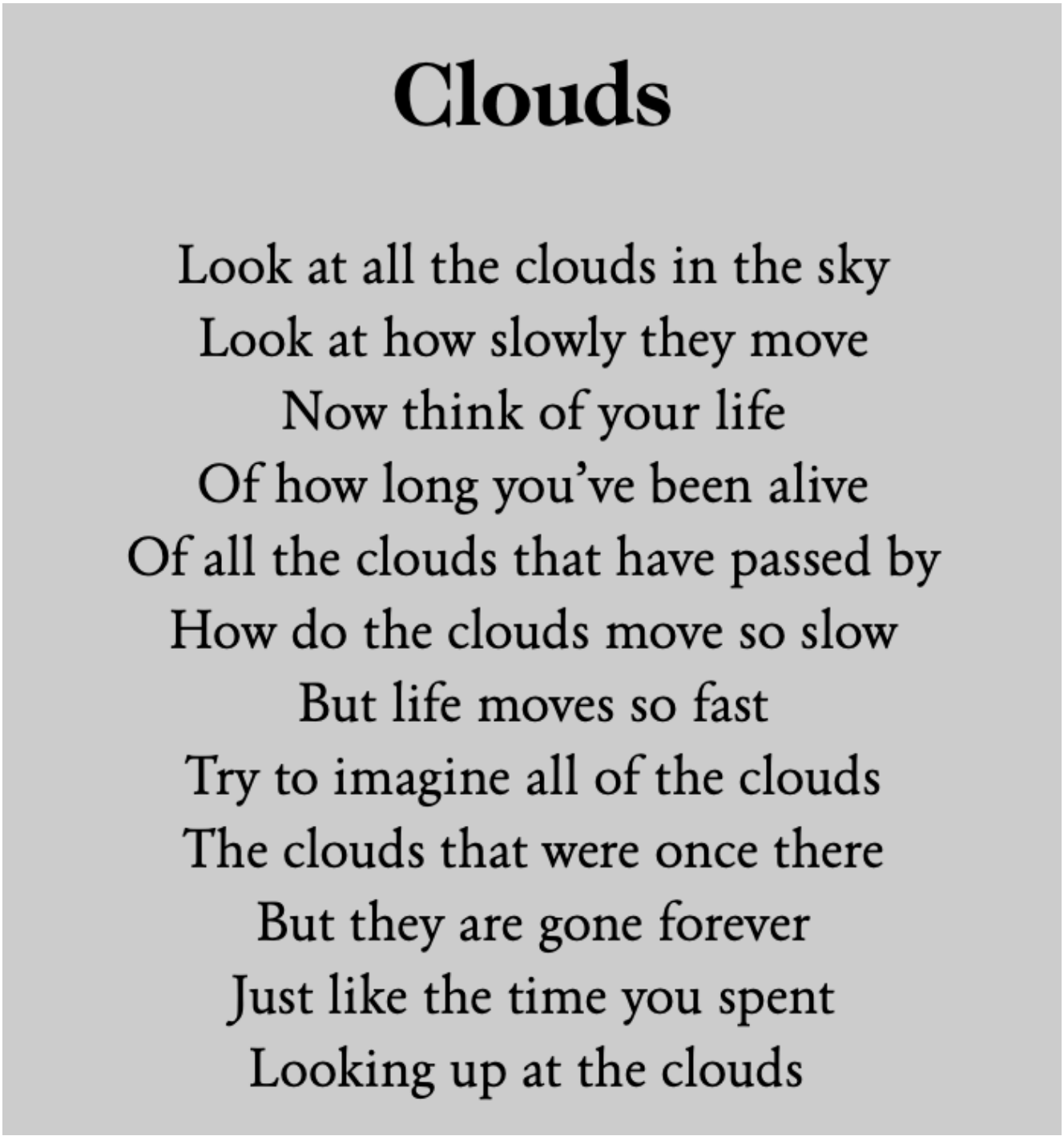

Explore sketchbooks of artists (above: William Turner)

Egyptians weighing the heart after death

**Present a variety of sketchbook activities, for example:**

- **A challenge to explore how different art forms portray “cloud”**
- **A challenge to explore how other cultures have perceived “weight”**
- **A challenge to explore how other artists have used sketchbooks to explore “cloud”**

**A challenge to explore diverse mark making to create “cloud”**




Anonymous

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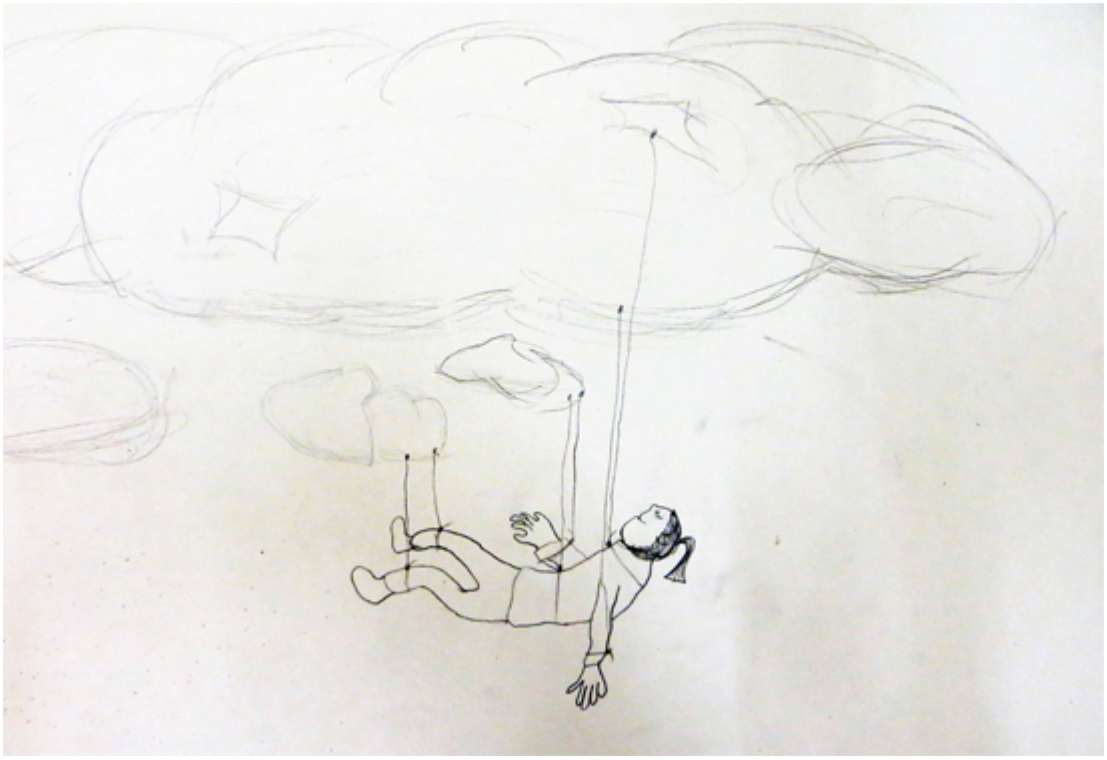
First, figure out how dense the cloud is. Scientists have measured the water density of a typical cumulus cloud (the white, fluffy ones you see on a nice day) as 1/2 gram per cubic meter—about a small marble's worth of water in a space you and a friend could comfortably sit in. The density will be greater for different types of clouds.

Next, figure out how big the cloud is. By measuring a cloud's shadow when the sun is directly above it, you can get an idea of its width. LeMone does this by watching her odometer as she drives under a cloud. A typical cumulus, she says, is about a kilometer across, and usually roughly cubical—so a kilometer long and a kilometer tall, too. This gives you a cloud that's one billion cubic meters in volume.

Do the math with the density and volume to determine the total water content of the cloud. In this case, it's 500,000,000 grams of water, or 1.1 million pounds. That's a lot of weight to wrap your head around, so LeMone suggests putting it in more familiar terms, like elephants. That cloud weighs about as much as 100 elephants.



__Imagine

you are as light as a cloud. How would it feel to be taken on a journey by a cloud?

## Flip meanings to provoke ideas:

- **How much do the reflections of clouds in water weigh?**
- **Does the marble sculpture of a cloud feel heavy or light?**
- **Does the sculpture made from plastic bottles feel like it could float?**

How much do the reflected clouds weigh?

Marble carved cloud by Rob Wood

“Head in the Clouds” Sculpture made from 53,000 plastic

bottles

## Make:

- **Clouds out of clothes**
- **A whole weather system**
- **A cloud mobile**