STUDENT WORKSHEETS

WORKSHEET 1: CHANGING SCIENTIFIC KNOWLEDGE

Name:

In your own words, summarise the scientific discoveries relevant to each time period to demonstrate how scientific knowledge about pumpkins has changed over time. Use *Appendix 2: Timeline* and the class materials to help you.

Date/Time Period	Event	Explain the scientific knowledge
~10,000 BCE	Earliest Domestication Evidence	
~4,000 BCE	Diversification and Selective Breeding	
1753 CE	Formal Botanical Classification	
Mid-to-Late 20th Century	Morphological and Genetic Differentiation	
Late 20th Century	Nutritional Analysis	
21st Century	Genomic and Breeding Innovations	
2024	Archaeobotanical Advances	

WORKSHEET 2: MEDIA AND INFLUENCER ANALYSIS

Name:

Choose two media examples featuring pumpkin (e.g. a social media post, YouTube thumbnail, recipe or advertisement).
Analyse how the message is constructed and how it might influence your thoughts, attitudes or behaviours.

MEDIA EXAMPLE ONE (DESCRIPTION OR TITLE)
1. What message is being shared?
2. What techniques are used to influence the viewer?
3. How could this shape someone's perceptions of pumpkin? What impacts could this have on their selection of foods for healthy eating?

WORKSHEET 2: MEDIA AND INFLUENCER ANALYSIS

MEDIA EXAMPLE TWO (DESCRIPTION OR TITLE)
1. What message is being shared?
2. What techniques are used to influence the viewer?
3. How could this shape someone's perceptions of pumpkin? What impacts could this have on their selection of foods for healthy eating?

APPENDIX 1:
PUMPKIN IMAGES

APPENDIX 2: TIMELINE

Use this timeline to complete *Worksheet 1: Changing Scientific Knowledge.*

~10,000 BCE – Earliest Domestication Evidence

- Archaeobotanical findings from Guilá Naquitz Cave in Mexico show that wild forms of *Cucurbita pepo* (ancestral pumpkin/squash) were being domesticated by Indigenous peoples more than 10,000 years ago.

~4,000 BCE – Diversification and Selective Breeding

- By around 4,000 BCE, domesticated *Cucurbita moschata* and *Cucurbita pepo* varieties appear in the archaeological record in Central and South America. Evidence shows Indigenous farmers were selectively breeding different varieties for food, leading to greater crop diversity.

1753 CE – Formal Botanical Classification

- Carl Linnaeus publishes Species Plantarum, formally describing the genus *Cucurbita* and laying the groundwork for the scientific classification of pumpkins and related squashes.

Mid-to-Late 20th Century – Morphological and Genetic Differentiation

- Scientists use morphological and genetic analyses to distinguish between wild and domesticated forms of *Cucurbita*, clarifying that 'pumpkin' can refer to several species and subspecies, and identifying key traits selected during domestication.

Late 20th Century – Nutritional Analysis

- Advances in nutritional science reveal that pumpkin is a rich source of beta-carotene (provitamin A), fibre, and antioxidants, with research linking pumpkin consumption to benefits for vision, immune function, and heart health.

21st Century – Genomic and Breeding Innovations

- Modern genomic research enables plant breeders to develop pumpkin varieties with specific traits such as disease resistance, size, colour, and flavour, as well as adaptation to diverse growing conditions.

2024 – Archaeobotanical Advances

- Recent studies using radiocarbon dating and morphometric analysis further refine our understanding of pumpkin domestication, documenting the tempo and mode of selection, crop diversification, and the spread of pumpkins across the world.

APPENDIX 3:
ANALYSING MEDIA IMAGES

MEDIA MESSAGE 1: SOCIAL MEDIA INFLUENCER POST

MEDIA MESSAGE 2: CELEBRITY CHEF RECIPE

Jamie Oliver Roast Pumpkin Risotto Recipe

Jamie Oliver's Roast Pumpkin Risotto is a creamy, flavorful dish that combines the richness of roasted pumpkin with the comforting texture of risotto. This recipe is perfect for fall and winter meals, as it showcases the natural sweetness of pumpkin along with aromatic herbs and creamy Parmesan. With easy steps and simple ingredients, this risotto is both impressive and satisfying.

(Kendric, A. 2024)

IMEDIA MESSAGE 3: FAST FOOD CHAIN ADVERTISMENT

MEDIA MESSAGE 4: YOUTUBE THUMBNAIL