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Pumpkin Predictions 100 min

Objective:

Students will explore and document data about their pumpkin.

Big Idea:

Math and Science are all around us.

1. Warm Up / Anticipatory 10 min

Share with students what is expected of them and have them choose the supplies they feel they need to successfully complete their investigations.

2. Investigation and New Learning 70 min

Pumpkin Predictions

Students will use a variety of tools to gather data about their pumpkin. They will choose 3 different ways to measure their pumpkin and record their findings. Standard and non standard units of measure are acceptable. They will also continue to develop their estimation skills(how many seeds?) as well as make decisions about the most efficient way to count the seeds once the pumpkin has been cleaned. Station approach may work for some educators, but I just let students have free choice. Students will also hypothesize about and then conduct an experiment to determine if their pumpkin will sink or float. They will document their results, record and then share their findings.

3. Review & Check for Understanding 30 min

Students will share their results with the other members of the class during a class meeting. Graphs to demonstrate the number of seeds may be made. Results of the pumpkin seed count could be compared and a pattern may be noticed. Discuss the different ways that students choose to count seeds, why is one way more efficient than another? Results may be shared on the [Pumpkin Seed Project-Projects By Jen](http://wg.wonderopolis.org/projects/pumpkin-seed-project)



Students may also view the Wonder 1301, to gather further information about whether or not all pumpkins sink or float.

Standards: SG1. SG3. K.PS.3. K.PS.2. SF2. SF1. SB1. SB4. SE1. K.PS.1. K.SL.3.1. K.RN.1.1. K.RF.1.1. K.RL.P.4.1. K.I.3.1. K.RN.2.2. K.RN.3.2. K.RV.3.2. K.RV.1.1. K.RN.4.1. SA1. [3] SC4.1. K.RI.MC.6.1. K.RI.P.4.1. RI.K.1. RI.K.2. K.RI.LCS.8.1. K.RI.LCS.11.2. K.S.1A.3. K.S.1A.1. K.C.MC.2.1. RI.K.4. RI.K.8. [3] SA1.2. [3] SA2.1. [3] SB1.1. [3] SA1.1. L.K.6. RI.K.10. RF.K.4. SL.K.2. K.5 (A) K.3 (C) LA 0.4.1.A. 2.1.1.B. 2.1.1.D. 2.1.1.E. LA 0.1.6.O. LA 0.1.6.M. LA 0.1.6.E. LA 0.1.6.F. LA 0.1.6.I. 2.1.1.F. 2.2.1.A. K.1.J) K.1.H) K.1.B) K.1.A) K.1.K) K.4.D) 2.2.2.B. K.9.B) K.5.C) LA 0.1.6.D. LA 0.1.5.C. K.11 (A) K.10 (A) (K.9) K.4 (B) 110.11 (B) 110.11 (C) K.2 (D) K.2 (B) 110.11 (F) 0.10.6.6. 0.8.2.2. 0.2.2.2. 0.2.1.1. LA 0.1.5.B. 0.2.4.4. 0.2.8.8. 0.6.1.1. 0.3.0.4. 0.2.10.10. K.S.1A.4. K.RN.2.1. K-PS2-1. RI.K.1 RI.K.2 5.1. K.S.1A.5. K.P.4A.1. K.S.1A.8. K.S.1A.6. 3.2. 3.1. W.K.1 SL.K.2 L.K.6 RF.K.4 RI.K.10 2.1. 1.1. RI.K.8 K.P.4A.2. RI.K.4 1.8.2.2. 1.3.0.4.A. 1.8.7.7.A. 1.8.7.7.B. RI.1.4 RI.1.6 1.2.10.10. RI.1.7 1.2.8.8. 1.2.7.7. RF.1.4C RF.1.4A RI.1.8 RI.1.10 RI.1.2 RI.1.1 SG3. 1.RN.4.1. SG1. SF2. SE1. SF1. 1.1.1.1.2. 1.RN.2.1. 1.RF.1.1. 1.10.4.4.A. 1.RF.2.1. 1.RF.2.2. 1.RN.1.1. 1.2.6.6. 1.2.4.4. 3.1. 3.3. 1.1. 2.1. 1.1.3.1. 1.RI.MC.6.1. 1.RI.LCS.8.1. 1.RI.LCS.9.1. 1.1.2.1. SL.1.2 1.S.1A.1. 1.W.MCC.2.1. 1.RI.LCS.11.2. 1.4 (B) 1.6 (C) 110.12 (D) 110.12 (C) 110.12 (F) 1.2 (B) 1.5 (A) 1.2 (D) 1.19 (C) 1.15 (A) 1.2.1.1. 1.14 (A) 1.2.2.2. SB4. 1.14 (B) L.1.4A 1.RN.2.2. 1.S.1A.3. 1.1.A) 1.S.1A.8. 1.S.1A.6. 1.S.1A.5. 1.8.B) 1.8.C) 1.10.G) 1.1.B) 1.10.F) 1.8.E) 1.8.D) 2.2.2.B. 2.2.1.A. 1.SL.3.1. 1.RV.3.2. LA 1.2.1.C. LA 1.1.6.O. 1.S.1A.4. 1.RV.2.1. 1.RV.1.1. SB1. 2.1.1.F. 2.1.1.D. 2.1.1.B. LA 1.4.1.A. 1.1.I) 2.1.1.E. RF.1.4.A. [3] SC4.1. RI.1.10. RI.1.7. RI.1.4. RI.1.6. 1.1.J) [3] SB1.1. L.1.4.A. SL.1.2. [3] SA1.1. [3] SA1.2. [3] SA2.1. SA1. RF.1.4.C. LA 1.1.6.I. LA 1.1.6.M. LA 1.1.6.E. LA 1.1.6.D. LA 1.1.5.B. LA 1.1.5.C. 1.2.C) 1.2.A) RI.1.2. RL.1.5. RI.1.1. 110.47.9 (E) 110.47.8 (D) 110.47.8 (B) 10-12.8 (A) 9-10.3 (D) RST.9-10.4. RST.9-10.5. 110.48.1 (A) SF2. SG1. WHST.9-10.2.D. WHST.9-10.4. 9-10.2 (D) SG3. 9-10.3 (F) 9-12.2 (J) 9-10.2 (C) 110.51.2 (C) 110.55.3 (B) 110.55.3 (C) 110.55.3 (A) 110.55.2 (C) 110.54.5 (B) 110.55.4 (A) 110.55.4 (B) 110.55.4 (C) 110.55.4 (D) 110.55.5 (A) 110.55.5 (B) 110.54.5 (A) 110.54.3 (A) 110.48.4 (F) 110.48.4 (E) 110.48.3 (A) 110.48.2 (F) 110.48.5 (A) 110.48.6 (A) 110.53.3 (B) 110.51.2 (L) 110.49.2 (B) 110.48.6 (C) 110.48.2 (A) EII.2 (A) E3.RI.P.4.1. E3.RI.P.4.3. E3.I.3.2. E3.I.2.1. E2.RI.LCS.9.5. E2.C.MC.1.1. E3.RI.MC.5.1. E3.RI.MC.5.2. E3.RI.LCS.9.2. E3.RI.LCS.9.3. E3.RI.LCS.9.1. E3.RI.LCS.8.1. E3.RI.MC.6.1. E2.RI.LCS.9.4. E2.RI.LCS.9.3. E2.I.3.2. E2.RI.P.4.1. E2.I.2.1. E1.C.MC.1.1. E1.RI.LCS.9.5. E2.RI.P.4.3. E2.RI.MC.5.1. E2.RI.LCS.9.1. E2.RI.LCS.9.2. E2.RI.LCS.8.1. E2.RI.MC.6.1. E2.RI.MC.5.2. WHST.9-10.4. WHST.9-10.2(D) E4.RI.MC.5.2. E4.RI.MC.5.1. E4.RI.MC.6.1. E4.RI.LCS.8.1. E4.RI.LCS.9.2. E4.RI.LCS.9.1. E4.RI.P.4.3. E4.RI.P.4.1. E3.RI.LCS.11.2. E3.RI.LCS.9.5. E3.C.MC.1.1. E4.I.2.1. E4.I.3.2. E4.RI.LCS.9.3. E4.RI.LCS.9.4. H.P.2D.5. H.P.2D.3. H.P.2D.6. RST.9-10.4. RST.9-10.5. H.P.1A.8. H.P.1A.6. E4.RI.LCS.11.2. E4.RI.LCS.9.5. E4.C.MC.1.1. H.P.1A.3. H.P.1A.4. E1.RI.LCS.9.4. E1.RI.LCS.9.3. EIV.1 (A) 110.33 (B) EIV.1 (B) EIV.2 (C) EIV.9 (D) (EIV.8) 110.33 (A) EIII.15 (C) (V) EIII.1 (A) 110.32 (B) EIII.1 (B) EIII.2 (C) EIII.9 (B) EIV.15 (C) (V) 110.34 (A) 110.47.5 (B) 110.47.4 (C) 110.47.6 (A) 110.47.6 (C) 110.47.7 (A) 110.47.3 (D) 110.47.3 (C) 110.46.1 (A) 110.34 (B) 110.47.1 (A) 110.47.2 (A) 110.47.3 (B) 110.32 (A) EII.9 (B) E1.I.2.1. E1.I.3.2. SF1. EI.1 (A) 110.31 (A) (EI.8) E1.RI.P.4.1. E1.RI.P.4.3. E1.RI.LCS.9.1. E1.RI.LCS.9.2. E1.RI.MC.6.1. E1.RI.MC.5.2. E1.RI.MC.5.1. 110.31 (B) PH.5.E) 10.3.F) 10.4.G) EII.1 (A) E3.RI.LCS.9.4. (EII.8) 10.5.F) 10.5.H) PH.3.D) PH.5.A) PH.2.D) PH.1.C) 10.7.D) 110.47.8 (A) SA1. 9.11.6.6. 9.1.1.1.2. 9.1.1.1.5. 9.1.1.1.6. 9.11.4.4.D. 9.11.4.4.A. 9.5.4.4. 9.5.9.9. 9.7.8.8. 9.9.7.7.B. 9.1.1.1.7. 9.13.4.4. RI.9-10.4. W.9-10.8. L.9-10.4.A. L.9-10.4.D. RI.9-10.2. RI.9-10.1. 9.13.5.5. 9.14.2.2.D.